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UNITED STATES DISTRICT COURT
TERRITORY OF GUAM

UNITED STATES OF AMERICA,

Plaintiff,

v.

GUAM WATERWORKS AUTHORITY
and the GOVERNMENT OF GUAM,

Defendants.

CIVIL NO. **02-00035**

**COMPLAINT FOR
INJUNCTIVE RELIEF AND
CIVIL PENALTIES UNDER
THE CLEAN WATER ACT AND
SAFE DRINKING WATER ACT**

FILED
DISTRICT COURT OF GUAM
DEC 20 2002
MARY L. M. MORAN
CLERK OF COURT

1 The United States of America, through its undersigned attorneys, by authority of the
2 Attorney General and at the request of the Administrator of the Environmental Protection Agency
3 (“EPA”), alleges:

4 INTRODUCTION

5 1. This is a civil action seeking injunctive relief and the assessment of civil penalties
6 against the Guam Waterworks Authority (“GWA”) under the Clean Water Act, 33 U.S.C.
7 §§ 1251 - 1387 (the “CWA”), and the Safe Drinking Water Act, 42 U.S.C. §§ 300f - 300j-26 (the
8 “SDWA”). The United States seeks injunctive relief against GWA pursuant to Section 504 of
9 the CWA, 33 U.S.C. § 1364, and Section 1431(a) of the SDWA, 42 U.S.C. § 300i(a), to address
10 the imminent and substantial endangerment to the health and welfare of persons presented by:
11 (1) the numerous and repeated discharges of untreated and inadequately treated wastewater from
12 GWA’s treatment works, resulting in elevated levels of fecal coliform bacteria in both surface
13 waters and drinking water wells on Guam; and (2) serious deficiencies in GWA’s public water
14 systems, causing contaminated water to be served to the public. The United States also seeks
15 both civil penalties and injunctive relief under CWA Section 309(b) and (d), 33 U.S.C.
16 § 1319(b) and (d), for violations of the CWA and the terms and conditions of applicable National
17 Pollutant Discharge Elimination System (“NPDES”) permits, and under SDWA 1414(b), 42
18 U.S.C. § 300g-3(b), for violations of the SDWA and the National Primary Drinking Water
19 Regulations. The Government of Guam is identified as a defendant as required by CWA Section
20 309(e), 33 U.S.C. § 1319(e).

21 PARTIES

22 2. The plaintiff is the United States of America (“United States”).

23 3. The defendants are the Guam Waterworks Authority (“GWA”) and the
24 Government of Guam (“GovGuam”).

25 4. GWA is a public corporation and an agency within the Government of Guam.
26 GWA has the authority to produce, treat, transmit, store, distribute, and sell water on Guam.

1 GWA also has the authority to collect, treat, and sell or dispose of wastewater on Guam. GWA
2 may be sued for actions incident to the exercise of its lawful powers pursuant to Title 12, Guam
3 Code Annotated, Chapter 14. 33 U.S.C. §§ 1311(a), 1319(b), 1362(4) and (5), and 1364; 42
4 U.S.C. §§ 300f(10) and (12), 300g-3(b), and 300i(a).

5 5. Guam is an unincorporated territory of the United States created by statute and has
6 the power to sue and be sued. 48 U.S.C. § 1421a; 33 U.S.C. §§ 1311(a) and 1362(3) and (5).
7 GovGuam is joined as a statutory defendant in this action pursuant to CWA Section 309(e), 33
8 U.S.C. § 1319(e).

9 **JURISDICTION AND VENUE**

10 6. This Court has jurisdiction over the parties and the subject matter of this action
11 under 28 U.S.C. §§ 1331, 1345, and 1355, Sections 309(b) and (e) and 504 of the CWA, 33
12 U.S.C. §§ 1319(b) and (e) and 1364, and Sections 1414(b) and (g)(3)(C) and 1431(a) of the
13 SDWA, 42 U.S.C. §§ 300g-3(b) and (g)(3)(C) and 300i(a).

14 7. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391(b) and (c)
15 and 1395(a), CWA Sections 309(b) and 504, 33 U.S.C. §§ 1319(b) and 1364, and SDWA
16 Sections 1414(g)(3)(C) and 1431(a), 42 U.S.C. §§ 300g-3(g)(3)(C) and 300i(a), because the
17 defendants are located in this district and the events or omissions giving rise to this action
18 occurred in this district.

19 8. EPA has notified Guam of this action under CWA Section 309(b), 33 U.S.C.
20 § 1319(b).

21 9. In letters dated September 19 and November 22, 2002, the Guam Environmental
22 Protection Agency, which is the agency with jurisdiction over compliance by public water
23 systems in Guam, requested EPA to take enforcement action against GWA to require compliance
24 with the SDWA pursuant to SDWA Sections 1414(b)(2) and 1431, 42 U.S.C. §§ 300g-3(b)(2)
25 and 300i.

STATUTORY AND REGULATORY BACKGROUND

Clean Water Act

10. CWA Section 301(a), 33 U.S.C. § 1311(a), prohibits the discharge of pollutants into navigable waters by any person except as authorized by, and in compliance with, certain other sections of the CWA, including CWA Section 402, 33 U.S.C. § 1342.

11. Under CWA Section 402(a), 33 U.S.C. § 1342(a), the EPA Administrator may issue NPDES permits, which authorize the discharge of pollutants into waters of the United States, subject to the conditions and limitations set forth in such permits.

12. Under CWA Section 402(b), 33 U.S.C. § 1342(b), the EPA Administrator may approve a state's administration of the NPDES program in that state. The EPA Administrator has not approved Guam to administer the NPDES permit program in Guam.

13. CWA Section 504 authorizes "the Administrator [of EPA] upon receipt of evidence that a pollution source or combination of sources is presenting an imminent and substantial endangerment to the health of persons or to the welfare of persons . . . [to] bring suit on behalf of the United States . . . to immediately restrain any person causing or contributing to the alleged pollution to stop the discharge of pollutants causing or contributing to such pollution or to take such other action as may be necessary." 33 U.S.C. § 1364.

14. CWA Section 502(5) defines the term "person" to include a State, municipality, or political subdivision of a State. 33 U.S.C. § 1362(5).

15. CWA Section 502(3) defines "State" to include Guam. 33 U.S.C. § 1362(3).

16. CWA Section 502(4) defines "municipality" to include a "public body created by or pursuant to State law and having jurisdiction over disposal of sewage." 33 U.S.C. § 1362(4).

17. CWA Section 502(6) defines "pollutant" to include "dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water." 33 U.S.C. § 1362(6).

1 18. CWA Section 502(19) defines "pollution" as "the man-made or man-induced
2 alteration of the chemical, physical, biological, and radiological integrity of water." 33 U.S.C.
3 § 1362(19).

4 19. CWA Section 502(12) defines "discharge of a pollutant" to include "any addition
5 of any pollutant to navigable waters from any point source." 33 U.S.C. § 1362(12).

6 20. CWA Section 502(7) defines "navigable waters" to be "the waters of the United
7 States, including the territorial seas." 33 U.S.C. § 1362(7).

8 21. CWA Section 502(14) defines "point source" to include "any discernible,
9 confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel,
10 conduit, well, discrete fissure, container . . . from which pollutants are or may be discharged." 33
11 U.S.C. § 1362(14).

12 22. "Bypass" means the intentional diversion of waste streams from any portion of a
13 treatment facility. 40 C.F.R. § 122.41(m)(1).

14 23. Under 40 C.F.R. § 122.41(m)(4), bypass is prohibited, and EPA may take action
15 against a permittee for bypass unless: (1) it is unavoidable to prevent loss of life, personal injury,
16 or severe property damage; (2) there were no feasible alternatives to the bypass, such as the use
17 of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal
18 periods of equipment downtime; or (3) the permittee submitted notices as required by the permit.

19 24. Pursuant to CWA Section 309(a), 33 U.S.C. § 1319(a), EPA may issue a
20 compliance order against any person in violation of CWA Section 301, 33 U.S.C. § 1311, or any
21 permit condition or limitation implementing CWA Section 301 in a permit issued under CWA
22 Section 402, 33 U.S.C. § 1342. CWA Section 309(b), 33 U.S.C. § 1319(b), authorizes EPA to
23 commence a civil action for appropriate relief, including a permanent or temporary injunction,
24 against any person who commits any violation against which EPA may issue a compliance order
25 pursuant to 33 U.S.C. § 1319(a).

26 25. CWA Section 309(d) provides that any person who violates CWA Section 301(a),
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1 33 U.S.C. § 1311(a), or any permit condition or limitations implementing Section 301 in a permit
2 issued under Section 402, 33 U.S.C. § 1342, shall be subject to civil penalties not to exceed
3 \$27,500 per day for each violation that occurred after January 30, 1997. 33 U.S.C. § 1319(d); 40
4 C.F.R. §§ 19.2, 19.4.

5 Safe Drinking Water Act

6 26. SDWA Section 1411, 42 U.S.C. § 300g, subjects each public water system to the
7 National Primary Drinking Water Regulations promulgated under Part B of the SDWA.

8 27. A “public water system” is a system for the provision to the public of water for
9 human consumption through pipes or other constructed conveyances, if such system has at least
10 fifteen service connections or regularly serves at least twenty-five individuals. The term includes
11 any collection, storage, and distribution facilities under the control of the operator of the system
12 and used primarily in connection with the system. 42 U.S.C. § 300f(4).

13 28. A “community water system” is a public water system that serves at least fifteen
14 service connections used by year-round residents or regularly serves at least 25 year-round
15 residents. 42 U.S.C. § 300f(15).

16 29. A “supplier of water” is any person who owns or operates a public water system.
17 42 U.S.C. § 300f(5).

18 30. The term “maximum contaminant level” (“MCL”) means the maximum
19 permissible level of a contaminant in water that is delivered to any user of a public water system.
20 42 U.S.C. § 300f(3).

21 31. The SDWA defines “contaminant” as “any physical, chemical, biological, or
22 radiological substance or matter in water.” 42 U.S.C. § 300f(6).

23 32. “Conventional filtration treatment” means a series of processes including
24 coagulation, flocculation, sedimentation, and filtration, resulting in substantial particulate
25 removal. 40 C.F.R. § 141.2.

26 33. A “person” is defined as “an individual, corporation, company, association,
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1 partnership, State, municipality, or Federal agency (and includes officers, employees, and agents
2 of any corporation, company, association, State, Municipality, or Federal agency).” 42 U.S.C.
3 § 300f(12).

4 34. The term “State” is defined to include Guam. 42 U.S.C. § 300f(13).

5 35. The term “Municipality” includes any public body created by or pursuant to State
6 law. 42 U.S.C. § 300f(10).

7 36. An “underground source of drinking water” is defined in part as an aquifer or its
8 portion that supplies any public water supply system. 40 C.F.R. § 144.3.

9 37. In order to protect areas with one aquifer, EPA has the authority under SDWA
10 Section 1424(e), 42 U.S.C. § 300h-3(e), to publish a notice of determination in the Federal
11 Register that an area has an aquifer that is the area’s sole or principal drinking water source,
12 which, if contaminated, would create a significant hazard to public health.

13 38. SDWA Section 1414(b), 42 U.S.C. § 300g-3(b), authorizes the EPA
14 Administrator to commence civil actions for injunctive relief and civil penalties for violations of
15 any applicable requirement, which includes the National Primary Drinking Water Regulations.
16 42 U.S.C. § 300g-3(i).

17 39. When a state has primary enforcement responsibility for public water systems, the
18 United States may bring a civil action in the appropriate United States District Court under
19 SDWA Section 1414(b), 42 U.S.C. § 300g-3(b), to require compliance with National Primary
20 Drinking Water Regulations if requested by the state agency that has jurisdiction over
21 compliance by public water systems in the state with the National Primary Drinking Water
22 Regulations or state drinking water regulations.

23 40. The Guam Environmental Protection Agency has primary enforcement
24 responsibility under SDWA Section 1413(a), 42 U.S.C. § 300g-2(a), for public water systems
25 within Guam.

26 41. Notwithstanding any other provision of the SDWA, Section 1431 of the SDWA
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1 provides the EPA Administrator with emergency powers and authorizes actions against imminent
2 and substantial endangerment to human health. 42 U.S.C. § 300i. The SDWA provides that “the
3 Administrator, upon receipt of information that a contaminant which is present in or is likely to
4 enter a public water system or an underground source of drinking water . . . may present an
5 imminent and substantial endangerment to the health of persons, and that appropriate State and
6 local authorities have not acted to protect the health of such persons, may take such actions as he
7 may deem necessary in order to protect the health of such persons.” These actions may include
8 “commencing a civil action for appropriate relief, including a restraining order or permanent or
9 temporary injunction.” 42 U.S.C. § 300i(a).

10 42. The SDWA provides that, “[t]o the extent [the Administrator] determines it to be
11 practicable in light of such imminent endangerment, he shall consult with the State and local
12 authorities in order to confirm the correctness of the information on which action proposed to be
13 taken under this subsection [42 U.S.C. § 300i(a)] is based and to ascertain the action which such
14 authorities are or will be taking.” 42 U.S.C. § 300i(a).

15 43. The National Primary Drinking Water Regulations, which are set forth in 40
16 C.F.R. Part 141, include MCLs, treatment technique requirements, and monitoring and analytical
17 requirements.

18 44. 40 C.F.R. § 141.63 contains the MCLs for microbiological contaminants. For a
19 system that collects at least 40 samples per month, if no more than 5 percent of the samples
20 collected during a month are total coliform-positive, the system is in compliance with the MCL
21 for total coliform, provided that no routine or repeat samples test positive for fecal coliform. For
22 a system that collects fewer than 40 samples per month, if no more than one sample collected
23 during a month is total coliform-positive, the system is in compliance with the MCL for total
24 coliforms, provided that no routine or repeat samples test positive for fecal coliform. Any fecal
25 coliform-positive repeat sample or *E. coli*-positive repeat sample, or any total coliform-positive
26 repeat sample following a fecal coliform-positive or *E. coli*-positive routine sample constitutes a
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1 violation of the MCL for total coliforms. 40 C.F.R. § 141.63(b). A public water system must
2 determine compliance with the MCL for total coliforms for each month in which it is required to
3 monitor. 40 C.F.R. § 141.63(c).

4 45. Pursuant to 40 C.F.R. § 141.21(a), a community water system is required to
5 collect samples according to the population served. The regulation requires that systems collect
6 samples at sites that are representative of water throughout the distribution system according to a
7 written site sampling plan. The regulation also requires that if a routine sample is total coliform-
8 positive, the public water system must collect a set of repeat samples within 24 hours of being
9 notified of the positive result. 40 C.F.R. § 141.21(b)(1). A system that collects more than one
10 routine sample per month must collect no fewer than three repeat samples for each total coliform-
11 positive sample found. 40 C.F.R. § 141.21(b)(1). If one or more repeat samples in the set is total
12 coliform-positive, the public water system must collect an additional set of repeat samples in the
13 same manner as if a routine sample was total coliform-positive. 40 C.F.R. § 141.21(b)(4). If any
14 routine or repeat sample is total coliform-positive, the public water system must analyze that total
15 coliform-positive culture medium to determine if fecal coliforms are present, except that the
16 system may test for *E. coli* in lieu of fecal coliforms. 40 C.F.R. § 141.21(e).

17 46. EPA promulgated regulations in 40 C.F.R. Part 141, Subpart H, regarding the
18 filtration and disinfection of drinking water. The requirements of Subpart H constitute National
19 Primary Drinking Water Regulations and establish criteria under which filtration is required as a
20 treatment technique for public water systems supplied by a surface water source. 40 C.F.R.
21 § 141.70. In addition, Subpart H establishes treatment technique requirements in lieu of MCLs
22 for contaminants including turbidity. Id.

23 47. For a public water system using conventional filtration or direct filtration, the
24 turbidity level of representative samples of the system's filtered water must be less than or equal
25 to 0.5 Nephelometric Turbidity Units ("NTU") in at least 95 percent of the measurements taken
26 each month. 40 C.F.R. § 141.73(a)(1). The turbidity level of representative samples of the
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1 system's filtered water must at no time exceed 5 NTU. 40 C.F.R. § 141.73(a)(2). Failure to
2 meet these requirements is a treatment technique violation under 40 C.F.R. § 141.73.

3 48. The Administrator may bring a civil action to require compliance with any
4 applicable requirements, including the National Primary Drinking Water Regulations. 42 U.S.C.
5 §§ 300g-3(b), 300g-3(i). In any such civil action, the Court may impose on the violator a civil
6 penalty not to exceed \$27,500 for each day after January 30, 1997 in which such violation
7 occurred. 42 U.S.C. § 300g-3(b); 40 C.F.R. §§ 19.2, 19.4.

8 GENERAL ALLEGATIONS

9 NPDES Permits for GWA's Sewage Treatment Plants

10 49. GWA is a "municipality" under CWA Section 502(4), 33 U.S.C. § 1362(4), and is
11 the owner and operator of five Sewage Treatment Plants ("STPs") in Guam that have NPDES
12 permits. These STPs, which provide treatment for wastewater from their respective areas,
13 include: (1) Agana STP, Route 1, Agana; (2) Agat STP, Route 2, Agat; (3) Baza Gardens STP,
14 Baza Gardens Street, Talofofo; (4) Northern District STP, Route 34, Harmon Annex/Dededo;
15 and (5) Umatac-Merizo STP, Route 4, Merizo (collectively, the "Regulated STPs").

16 50. The Regulated STPs are "point sources" as defined by CWA Section 502(14), 33
17 U.S.C. § 1362(14).

18 51. The Agana, Agat, and Northern District STPs discharge to the Philippine Sea; the
19 Baza Gardens STP discharges to the Togcha River; and the Umatac-Merizo STP discharges to
20 the Toguan River.

21 52. The Philippine Sea, the Togcha River, and the Toguan River are "navigable
22 waters" as defined by CWA Section 502(7), 33 U.S.C. § 1362(7).

23 53. EPA issued NPDES Permit No. GU0020087 to GWA for the Agana STP under
24 the authority of CWA Section 402(a), 33 U.S.C. § 1342(a). The permit became effective on June
25 30, 1986, expired on June 30, 1991, and has been administratively extended pending renewal of
26 the permit. Sections A.1. and A.2. of Permit No. GU0020087 set forth the discharge limits and
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1 monitoring requirements for specified constituents of the effluent discharge from the Agana STP.

2 54. EPA issued NPDES Permit No. GU0020222 to GWA for the Agat STP under the
3 authority of CWA Section 402(a), 33 U.S.C. § 1342(a). The permit became effective on April
4 16, 2001, and expires on April 15, 2006. This NPDES permit had an initial effective date of
5 September 30, 1987, expired on September 29, 1992, and was administratively extended until
6 reissuance of the permit on April 16, 2001. Sections A.1., A.2. and A.3. of Permit No.
7 GU0020222 set forth the discharge limits and monitoring requirements for specified constituents
8 of the effluent discharge from the Agat STP for the period from September 30, 1987 until April
9 15, 2001, and Sections A., D., and E. of the current permit set forth the limits and requirements
10 for the period from April 16, 2001 until April 15, 2006.

11 55. Under the authority of CWA Section 402(a), 33 U.S.C. § 1342(a), EPA issued
12 NPDES Permit No. GU0020095 to GWA for the Baza Gardens STP. The permit became
13 effective on September 7, 2000, and expires on September 6, 2005. This NPDES permit had an
14 initial effective date of September 2, 1986, expired on September 2, 1991, and was
15 administratively extended until reissuance of the permit in September 2000. Sections A.1. and B.
16 of Permit No. GU0020095 set forth the discharge limits and monitoring requirements for
17 specified constituents of the effluent discharge from the Baza Gardens STP for the period from
18 September 2, 1986 to September 6, 2000, and Sections A., D., and E. of the current permit set
19 forth the limits and requirements for the period from September 7, 2000 until September 6, 2005.

20 56. Under the authority of CWA Section 402(a), 33 U.S.C. § 1342(a), EPA issued
21 NPDES Permit No. GU0020141 to GWA for the Northern District STP. The permit became
22 effective on June 30, 1986, expired on June 30, 1991, and has been administratively extended
23 pending renewal of the permit. Sections A.1. and A.2. of Permit No. GU0020141 set forth the
24 discharge limits and monitoring requirements for specified constituents of the effluent discharge
25 from the Northern District STP.

26 57. EPA issued NPDES Permit No. GU0020273 to GWA for the Umatac-Merizo STP
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1 under the authority of CWA Section 402(a), 33 U.S.C. § 1342(a) . The permit became effective
2 on September 7, 2000, and expires on September 6, 2005. The Umatac-Merizo STP did not have
3 an NPDES permit prior to September 7, 2000. Sections A., E., and F. of Permit No. GU0020273
4 set forth the discharge limits and monitoring requirements for specified constituents of the
5 effluent discharge from the Umatac-Merizo STP.

6 58. Each NPDES permit for the Regulated STPs contains a prohibition against bypass
7 in accordance with the provisions of 40 C.F.R. § 122.41(m).

8 59. GWA is required to submit to EPA monthly Discharge Monitoring Reports for
9 each of the Regulated STPs.

10 60. Pursuant to its NPDES permits, GWA is required to submit to EPA notices of
11 bypasses at any of the Regulated STPs.

12 GWA's Wastewater Collection and Conveyance Systems

13 61. In addition to the Regulated STPs, GWA owns and operates wastewater collection
14 and conveyance systems, including approximately 75 sewage pump stations, that transport raw
15 sewage to the STPs.

16 62. Wastewater is collected by GWA, transported through the conveyance systems,
17 treated, and discharged from the Regulated STPs. Wastewater constitutes a "pollutant" as
18 defined in CWA Section 502(6), 33 U.S.C. § 1362(6).

19 63. The Regulated STPs, together with GWA's wastewater collection and conveyance
20 systems (collectively referred to in this complaint as a "POTW"), are a "treatment works" as that
21 term is defined by CWA Section 212(2)(A) and (B), 33 U.S.C. § 1292(2)(A) and (B), and a
22 "publicly owned treatment works" as that term is defined by 40 C.F.R. § 122.2.

23 64. GWA is required to provide notifications and written reports to EPA for each spill
24 and overflow event from its wastewater collection and conveyance systems, in which raw sewage
25 or inadequately treated wastewater is discharged into the receiving waters.

GWA's Public Water Systems

65. GWA is a "municipality" under SDWA Section 1401(10), 42 U.S.C. § 300f(10), and owns and operates three water systems that supply drinking water for the majority of the population of Guam: the Northern (Public Water System ("PWS") ID# GU 0000006), Central (PWS ID# GU 0000003), and Southern (PWS ID# GU 0000001) Systems. GWA is a "supplier of water" as defined in 42 U.S.C. § 300f(5).

66. GWA's Northern, Central, and Southern Systems are "public water systems" and "community water systems" as defined in 42 U.S.C. § 300f(4) and (15).

67. GWA's Northern System serves approximately 142,000 people. GWA collects water from approximately 110 drinking water wells located in the northern ground water system of Guam to supply water for its Northern System. The northern ground water system of Guam is an underground source of drinking water as defined in 40 C.F.R. § 144.3.

68. The northern part of Guam is composed of porous limestone formations that allow surface water, including raw sewage spills and inadequately treated wastewater, to percolate rapidly to Guam's underground aquifers.

69. In response to a petition from Guam's Governor, EPA determined pursuant to SDWA Section 1424(e), 42 U.S.C. § 300h-3(e), that the northern ground water system of Guam is a principal source of drinking water for the island of Guam and that, if the ground waters were contaminated, a significant hazard to public health would exist. 43 Fed. Reg. 17,868 (April 26, 1978). In particular, EPA found that the ground water system is vulnerable to contamination through the recharge zone.

70. GWA's Central System serves approximately 22,000 people. It includes several drinking water wells owned by GWA, but is mainly supplied by water purchased by GWA from the Navy.

71. GWA's Southern System serves approximately 6,000 people. The Southern System relies on a surface water source for its water supply. GWA owns and operates a surface

1 water treatment plant at Ugum, which uses conventional filtration as defined in 40 C.F.R.
2 § 141.2. to treat water for the Southern System.

3 72. GWA's Northern, Central, and Southern Systems are connected by a series of
4 pipes and pumps. GWA can transport drinking water from one system to another.

5 73. GWA operates chlorinators at approximately 68 wellheads of its drinking water
6 wells and at its Ugum surface water treatment plant. GWA operates the chlorinators to disinfect
7 the water that it supplies to the public for human consumption.

8 74. In order to comply with the MCL for total coliforms, GWA is required to conduct
9 routine monitoring of water quality at designated sites that are representative of water throughout
10 its distribution system according to a written sample siting plan that is approved by the Guam
11 Environmental Protection Agency. 40 C.F.R. § 141.21(a)(1). At the same time and locations
12 that it collects samples for analysis for total coliform bacteria, GWA is also required by the
13 Guam Environmental Protection Agency to measure chlorine residual levels in the water in its
14 distribution system.

15 75. GWA and the Guam Environmental Protection Agency also periodically monitor
16 water quality at the wellheads for GWA's drinking water wells prior to chlorination.

17 76. GWA is also required to perform turbidity measurements, as required by 40
18 C.F.R. § 141.73, on representative samples of the Southern System's filtered water every four
19 hours that the Southern System serves water to the public. 40 C.F.R. § 141.74(c)(1).

20 77. GWA is required to provide monthly reports on drinking water quality in its
21 Northern, Central, and Southern Systems to the Guam Environmental Protection Agency, which
22 has primary enforcement responsibility for GWA's public water systems.

23 78. No variance or exemption pursuant to SDWA Sections 1411, 1415, or 1416, 42
24 U.S.C. §§ 300g, 300g-4, or 300g-5, relevant to these proceedings has been granted to GWA.

FIRST CLAIM FOR RELIEF

(Failure to comply with NPDES permit limits and requirements)

79. Plaintiff realleges and incorporates by reference Paragraphs 1 through 8, 10 through 25, and 49 through 64.

80. GWA's NPDES permits for the Regulated STPs contain effluent limitations based on Guam Water Quality Standards for pollutants such as fecal coliform bacteria, enterococci, turbidity, copper, aluminum, nitrate-nitrogen, and orthophosphate. The NPDES permits also contain technology-based effluent limits for pollutants such as biochemical oxygen demand, settleable solids, and suspended solids. In addition, the NPDES permits for the Regulated STPs require GWA to conduct monitoring of discharges from the Regulated STPs and to monitor water quality in receiving waters.

81. GWA has submitted discharge monitoring reports to EPA for the Regulated STPs that show repeated violations in the past five years of effluent limitations in GWA's NPDES permits. GWA repeatedly discharged pollutants in excess of the levels authorized by its NPDES permits from point sources into waters of the United States. These violations, as shown in GWA's Discharge Monitoring Reports for each STP, include, but are not limited to, the violations listed on Attachment A to this complaint.

82. GWA submitted notices to EPA indicating that it had intentionally diverted wastewater streams from part of the treatment facility at the Regulated STPs. These bypasses constitute violations of the NPDES permits' prohibition of bypasses and include, but are not limited to, the bypass events listed on Attachment A to this complaint.

83. GWA's Discharge Monitoring Reports for the Regulated STPs also show repeated instances in the past five years when GWA either failed to monitor or failed to report the results of monitoring to EPA. These violations, as shown in GWA's Discharge Monitoring Reports for each STP, include, but are not limited to, the violations listed on Attachment A to this complaint.

84. GWA's discharges of pollutants in excess of its permit limits, bypasses, and

1 failure to either monitor or report the results of monitoring as required by its permits violated
2 CWA Sections 301 and 402, 33 U.S.C. §§ 1311, 1342, and subject GWA to the imposition of
3 injunctive relief and civil penalties not to exceed \$27,500 per day for each violation occurring
4 after January 30, 1997, under CWA Section 309(b) and (d), 33 U.S.C. § 1319(b) and (d).

5 **SECOND CLAIM FOR RELIEF**
6 (Discharge without NPDES permit)

7 85. Plaintiff realleges and incorporates by reference Paragraphs 1 through 8, 10
8 through 25, and 49 through 64.

9 86. The NPDES permit for GWA's Umatac-Merizo STP has an effective date of
10 September 2000. Prior to September 2000, the Umatac-Merizo STP was not authorized to
11 discharge pollutants into waters of the United States.

12 87. On numerous occasions between December 1998 and September 2000, GWA
13 discharged inadequately treated wastewater from Station J, an overflow weir at the Umatac-
14 Merizo STP, into the Toguan River. These violations, as shown in GWA's discharge monitoring
15 reports and quarterly Operation & Maintenance Progress Reports for the Umatac-Merizo STP,
16 include, but are not limited to, the violations listed on Attachment B to this complaint.

17 88. On numerous occasions between December 1997 and the present, GWA has
18 discharged untreated wastewater, a pollutant, through point sources into waters of the United
19 States without authorization of an NPDES permit. These discharges resulted from a number of
20 causes including spills at sewage pump stations, spills and overflows at sewage line manholes,
21 and spills at various sewer lines. These violations, as shown in GWA's notifications and written
22 reports to EPA, include, but are not limited to, the violations listed on Attachment B to this
23 complaint.

24 89. GWA's discharges of pollutants without a permit violated CWA Section 301, 33
25 U.S.C. § 1311, and subject GWA to the imposition of injunctive relief and civil penalties not to
26 exceed \$27,500 per day for each violation occurring after January 30, 1997, under CWA Section
27

309(b) and (d), 33 U.S.C. § 1319(b) and (d).

THIRD CLAIM FOR RELIEF

(Failure to comply with NPDES permit condition for proper operation and maintenance)

90. Plaintiff realleges and incorporates by reference Paragraphs 1 through 8, 10 through 25, and 49 through 64.

91. The NPDES permits for the Regulated STPs include standard NPDES permit conditions, as required under 40 C.F.R. Part 122. In accordance with the provisions of 40 C.F.R. § 122.41(e), the NPDES permits for GWA include a requirement for proper operation and maintenance as follows: "The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit."

92. From November 1999 through November 2002, GWA reported over 500 million gallons of sewage spills and bypasses from its wastewater collection and conveyance systems and the Regulated STPs, as shown in Attachments A and C to this complaint. GWA reported over 96 million gallons of sewage spills from its wastewater collection and conveyance systems between January 1998 and June 1999. See Attachment C.

93. GWA has allowed critical wastewater treatment processes and equipment, such as primary clarifiers, aeration systems, sludge dewatering equipment, pumps, and motors, to remain nonoperational for extended periods of time at the Regulated STPs, resulting in frequent violations of the effluent limitations in GWA's NPDES permits and the diversion of waste streams from portions of the treatment facility, as shown in Attachment A to this complaint.

94. GWA's failure to maintain wastewater treatment processes and equipment critical to the overall operations of the Regulated STPs constitutes a violation of the operation and maintenance requirements of GWA's NPDES permits.

95. GWA has failed to consistently operate and maintain its wastewater collection and conveyance systems to achieve compliance with the CWA and the conditions of its NPDES

1 permits. For example, GWA has maintained its wastewater collection and conveyance systems
2 in a condition such that excessive amounts of groundwater and rainwater enter the systems,
3 resulting in overflows. Moreover, blockages and other failures in the sewage lines have resulted
4 in repeated overflows from the wastewater collection and conveyance systems. In addition,
5 pump station equipment failures and lack of emergency power generation sources have
6 frequently resulted in overflows from the systems. As a result of its failure to properly operate
7 and maintain its facilities, GWA has frequently allowed discharges of raw sewage at sewage
8 pump stations, spills and overflows at sewage line manholes, and spills at various sewer lines, as
9 shown in Attachment C to this complaint.

10 96. Each overflow from the wastewater collection and conveyance systems caused by
11 GWA's failure to properly operate and maintain its wastewater treatment facilities constitutes a
12 violation of the operation and maintenance requirements of GWA's NPDES permits.

13 97. Each failure by GWA to comply with the operation and maintenance requirements
14 of its NPDES permits constitutes a separate violation of CWA Sections 301 and 402, 33 U.S.C.
15 §§ 1311, 1342, and subjects GWA to the imposition of injunctive relief and civil penalties not to
16 exceed \$27,500 per day for each violation occurring after January 30, 1997, under CWA Section
17 309(b) and (d), 33 U.S.C. § 1319(b) and (d).

18 **FOURTH CLAIM FOR RELIEF**
19 **(CWA Section 309(e))**

20 98. Plaintiff realleges and incorporates by reference Paragraphs 1 through 8, 10
21 through 25, 49 through 64, 80 through 84, 86 through 89, and 91 through 97.

22 99. Pursuant to CWA Section 309(e), whenever a municipality is a party to an action
23 brought by the United States under CWA Section 309, the State in which such municipality is
24 located shall be joined as a party. 33 U.S.C. § 1319(e). Section 309(e) further provides that the
25 State shall be liable for payment of any judgment, or any expense incurred as a result of
26 complying with any judgment, entered against the municipality to the extent that the laws of that
27

1 State prevent the municipality from raising revenue needed to comply with such judgment.

2 100. Pursuant to CWA Section 309(e), 33 U.S.C. § 1319(e), GovGuam is liable for
3 payment of any judgment entered against GWA under CWA Section 309 to the extent that
4 Guam's laws prevent GWA from raising revenues needed to comply with such judgment.

5 **FIFTH CLAIM FOR RELIEF**
6 (CWA Section 504 - Imminent and substantial endangerment)

7 101. Plaintiff realleges and incorporates by reference Paragraphs 1 through 8, 10
8 through 25, 49 through 64, 80 through 84, 86 through 89, and 91 through 97.

9 102. In the past five years, GWA repeatedly discharged pollutants from the Regulated
10 STPs in excess of the levels authorized by its NPDES permits and repeatedly discharged
11 untreated or inadequately treated wastewater from its wastewater collection and conveyance
12 systems to waters of the United States.

13 103. GWA's POTW constitutes a "pollution source or combination of sources" within
14 the meaning of CWA Section 504, 33 U.S.C. § 1364.

15 104. GWA's discharges of inadequately treated wastewater from the Regulated STPs,
16 bypasses at the Regulated STPs, and spills or overflows of untreated wastewater from its
17 wastewater collection and conveyance systems constitute the discharge of "pollution" within the
18 meaning of CWA Sections 502(19) and 504, 33 U.S.C. §§ 1362(19), 1364.

19 105. Analyses of samples collected during the past five years, as provided to EPA in
20 GWA's Discharge Monitoring Reports, indicate that GWA's discharges of inadequately treated
21 wastewater from the Regulated STPs and unpermitted discharges of raw sewage have caused
22 and/or contributed to fecal coliform bacteria and enterococci levels in the Philippine Sea, the
23 Togcha River, and the Toguan River that exceed Guam Water Quality Standards. These
24 discharges also affected other water bodies on Guam. Fecal coliform bacteria and enterococci
25 are indicators that unacceptable levels of disease-causing organisms are present in receiving
26 water bodies.

1 106. Organisms such as bacteria, viruses, protozoa, and other parasites in inadequately
2 treated wastewater and raw sewage can cause a number of adverse health effects in users of
3 contaminated areas, ranging from minor illnesses such as sore throats and diarrhea to more
4 serious diseases such as severe gastroenteritis, dysentery, cholera, meningitis, and encephalitis.
5 Children, the elderly, and people with weakened immune systems have an increased probability
6 of contracting such illnesses, with potentially life-threatening consequences, when they come into
7 contact with sewage-contaminated water.

8 107. The Philippine Sea, the Togcha River, and the Toguan River are used for
9 recreational purposes including swimming, other water contact sports, and fishing. These water
10 bodies are also used for commercial purposes including fishing, shellfishing, and tourism.

11 108. Persons using the Philippine Sea, the Togcha River, the Toguan River, and other
12 water bodies on Guam for either recreational or commercial purposes are exposed to enterococci
13 and fecal coliform bacteria from GWA's repeated discharges from its POTW of inadequately
14 treated wastewater and untreated wastewater. These persons are at risk of contracting diseases.

15 109. In the past five years, the Guam Environmental Protection Agency has repeatedly
16 taken steps to restrict use of local beaches through the issuance of health advisories. These
17 advisories are issued when enterococci levels in beach waters are above the accepted Guam
18 Water Quality Standards for marine recreational beaches, and are based on weekly monitoring of
19 38 public beaches on Guam. For example, the Guam Environmental Protection Agency issued a
20 beach advisory for 24 public beaches on November 21, 2002, warning people to avoid swimming
21 or wading at those beaches. See Attachment D to this complaint. Thus, the Guam
22 Environmental Protection Agency issued a beach advisory for 63 percent of public beaches
23 monitored on Guam for that week.

24 110. GWA's discharges of inadequately treated wastewater from the Regulated STPs,
25 bypasses at the Regulated STPs, and discharges of untreated raw sewage from its wastewater
26 collection and conveyance systems have also resulted in the contamination of aquifers used by
27
28

1 GWA to furnish drinking water to the people of Guam.

2 111. Analyses of samples collected during the past five years indicate that GWA's
3 discharges of inadequately treated wastewater from the Regulated STPs, bypasses at the
4 Regulated STPs, and unpermitted discharges of raw sewage from its wastewater collection and
5 conveyance systems have caused or contributed to total and/or fecal coliform levels in some of
6 GWA's drinking water wells that have resulted in exceedances in GWA's distribution system of
7 the MCL for total coliforms established under the SDWA.

8 112. People are at risk of contracting diseases when they use drinking water supplied
9 by GWA that has been contaminated with sewage and has not been adequately treated, including
10 disinfection.

11 113. The numerous discharges of inadequately treated wastewater and untreated
12 wastewater from GWA's POTW are presenting "an imminent and substantial endangerment" to
13 the health and welfare of persons within the meaning of CWA Section 504, 33 U.S.C. § 1364.

14 114. GWA, as the owner and operator of the POTW, is a "person causing or
15 contributing to the alleged pollution" within the meaning of CWA Section 504, 33 U.S.C.
16 § 1364.

17 115. Unless the Court orders GWA pursuant to CWA Section 504, 33 U.S.C. § 1364,
18 to immediately cease all discharges of inadequately treated wastewater from the Regulated STPs
19 and untreated wastewater from the Regulated STPs and its wastewater collection and conveyance
20 systems, to develop and implement a comprehensive emergency contingency plan to respond to
21 future unpermitted discharges, and to undertake an expeditious repair and rehabilitation program
22 of the POTW, GWA's unpermitted discharges from the Regulated STPs and its wastewater
23 collection and conveyance systems will continue to present an imminent and substantial
24 endangerment to the health and welfare of persons who either use local surface waters for
25 recreational and commercial purposes or use GWA's drinking water.

1 **SIXTH CLAIM FOR RELIEF**
2 (SDWA Section 1414 - Violation of MCL for total coliforms)

3 116. Plaintiff realleges and incorporates by reference Paragraphs 1 through 7, 9, 26
4 through 48, and 65 through 78.

5 117. GWA's Northern, Central, and Southern Systems are "public water systems"
6 required to comply with the National Primary Drinking Water Regulations under the SDWA. 42
7 U.S.C. § 300g.

8 118. The National Primary Drinking Water Regulations, which are set forth in 40
9 C.F.R. Part 141, include the MCLs for microbiological contaminants in 40 C.F.R. § 141.63.

10 119. In monthly reports provided to the Guam Environmental Protection Agency,
11 GWA provided information indicating that it had failed to comply with the MCL for total
12 coliforms set out in 40 C.F.R. § 141.63. These violations, as shown in GWA's monthly reports,
13 include, but are not limited to, the violations listed on Attachment E to this complaint.

14 120. Pursuant to SDWA Section 1414(b), 42 U.S.C. § 300g-3(b), GWA is liable for
15 civil penalties not to exceed \$27,500 for each day after January 30, 1997 in which it was in
16 violation of 40 C.F.R. § 141.63.

17 121. Unless enjoined by an order of the Court pursuant to SDWA Section 1414(b), 42
18 U.S.C. § 300g-3(b), GWA will continue to violate the SDWA and the National Primary Drinking
19 Water Regulations.

20 **SEVENTH CLAIM FOR RELIEF**
21 (SDWA Section 1414 - Violation of treatment technique for turbidity)

22 122. Plaintiff realleges and incorporates by reference Paragraphs 1 through 7, 9, 26
23 through 48, 65 through 78, and 117.

24 123. The National Primary Drinking Water Regulations, which are set forth in 40
25 C.F.R. Part 141, include the treatment technique for turbidity in 40 C.F.R. § 141.73.

26 124. In monthly reports provided to the Guam Environmental Protection Agency,
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28

1 GWA provided information indicating that it had failed to comply with the treatment technique
2 for turbidity set out in 40 C.F.R. § 141.73. These violations, as shown in GWA's monthly
3 reports, include, but are not limited to, the violations listed on Attachment F to this complaint.

4 125. Pursuant to SDWA Section 1414(b), 42 U.S.C. § 300g-3(b), GWA is liable for
5 civil penalties not to exceed \$27,500 for each day after January 30, 1997 in which it was in
6 violation of 40 C.F.R. § 141.73.

7 126. Unless enjoined by an order of the Court pursuant to SDWA Section 1414(b), 42
8 U.S.C. § 300g-3(b), GWA will continue to violate the SDWA and the National Primary Drinking
9 Water Regulations.

10 **EIGHTH CLAIM FOR RELIEF**
11 (SDWA Section 1431 - Imminent and substantial endangerment)

12 127. Plaintiff realleges and incorporates by reference Paragraphs 1 through 7, 9, 26
13 through 48, 65 through 78, 106, 110 through 112, and 117 through 121.

14 128. EPA established an MCL for total coliforms in 40 C.F.R. § 141.63 to ensure that
15 public water systems did not serve water for human consumption that could endanger public
16 health. The MCL for total coliforms uses the presence of total coliform and fecal coliform
17 bacteria in drinking water as an indicator that unacceptable levels of disease-causing organisms
18 may be present in drinking water.

19 129. Total coliform bacteria and fecal coliform bacteria are "contaminants" as defined
20 by 42 U.S.C. § 300f(6).

21 130. Based on the MCL violations for total coliforms reported by GWA to the Guam
22 Environmental Protection Agency, a contaminant "is present in or is likely to enter" GWA's
23 public water system within the meaning of 42 U.S.C. § 300i.

24 131. The presence of coliform bacteria at a level exceeding the MCL in GWA's public
25 water systems "may present an imminent and substantial endangerment to the health of persons"
26 within the meaning of 42 U.S.C. § 300i.

1 132. GWA's discharges of inadequately treated wastewater from the Regulated STPs,
2 bypasses at the Regulated STPs, and discharges of untreated raw sewage from its wastewater
3 collection and conveyance systems have also resulted in the contamination of parts of the
4 northern ground water system of Guam, which EPA designated as the principal source of
5 drinking water for the island of Guam. GWA uses drinking water wells located in the northern
6 ground water system of Guam to furnish drinking water to the people of Guam. As EPA
7 determined pursuant to SDWA Section 1424(e), 42 U.S.C. § 300h-3(e), contamination of this
8 aquifer creates a significant hazard to public health.

9 133. Wastewater is a "contaminant" as defined by 42 U.S.C. § 300f(6).

10 134. GWA and the Guam Environmental Protection Agency periodically monitor the
11 water quality in GWA's drinking water wells, which are "an underground source of drinking
12 water" within the meaning of 42 U.S.C. § 300i.

13 135. This monitoring indicated the presence of total coliform bacteria and fecal
14 coliform bacteria in GWA's drinking water wells at numerous times, including, but not limited
15 to, the dates listed in Attachment G to this complaint.

16 136. Based on GWA's continuing unauthorized discharges of untreated and
17 inadequately treated wastewater from its POTW as well as the presence of coliform bacteria and
18 fecal coliform bacteria in GWA's drinking water wells, a contaminant "is present in or is likely
19 to enter" GWA's underground source of drinking water within the meaning of 42 U.S.C. § 300i.

20 137. The presence of coliform bacteria and fecal coliform bacteria in GWA's
21 underground sources of drinking water "may present an imminent and substantial endangerment
22 to the health of persons" within the meaning of 42 U.S.C. § 300i.

23 138. SDWA regulations require the maintenance of a disinfectant residual in systems
24 that rely on surface water sources. 40 C.F.R. § 141.72. EPA also recognizes the maintenance of
25 a disinfectant residual as a best available technology in the MCL for total coliforms. 40 C.F.R.
26 § 141.63(d)(2). By maintaining an adequate level of a disinfectant residual in the water in its
27

1 distribution system, a public water system can kill or inactivate some pathogenic microorganisms
2 that enter into the system and can help control the growth of microorganisms in the pipelines of
3 the distribution system.

4 139. Due to GWA's repeated violations of the MCL for total coliforms and the
5 frequent presence of coliform bacteria and fecal coliform in GWA's drinking water wells, the
6 Guam Environmental Protection Agency requires GWA to maintain a chlorine residual of at
7 least 0.2 parts per million ("ppm") at all points in its distribution system and to periodically
8 measure the chlorine residual in its distribution system. An adequate chlorine residual is
9 necessary to help ensure the safety of the water provided by GWA for human consumption.

10 140. GWA owns and operates chlorinators at its Ugum surface water treatment plant
11 and at the wellheads of approximately 68 of its drinking water wells. The chlorinators are
12 necessary at the wellheads to disinfect the water before GWA supplies it to the public because
13 the groundwater is frequently contaminated.

14 141. On frequent occasions within the past five years, some of GWA's chlorinators at
15 the wellheads of its drinking water wells have not been in operation for various periods of time.
16 For example, according to information collected in field inspections by the Guam Environmental
17 Protection Agency, approximately 30 percent of GWA's chlorinators were not in service during
18 inspections from March 2001 to February 2002. The Guam Environmental Protection Agency
19 conducted an additional survey of chlorinators at GWA's wellheads for the period from August
20 20 to September 6, 2002, and determined that approximately 16 percent of GWA's chlorinators
21 were not in service during that period.

22 142. On frequent occasions within the past five years, GWA's monitoring indicated
23 that either no chlorine or an inadequate amount of chlorine was present in the drinking water
24 furnished to the public by GWA. For example, in samples collected at various locations in
25 GWA's distribution system, the chlorine residual was below 0.2 ppm in at least 25 to 40 samples
26 in each month from January to May 2002.

1 143. In light of the levels of coliform bacteria, especially fecal coliform, frequently
2 found in GWA's public water systems and underground sources of drinking water, the absence or
3 inadequate amount of chlorine in GWA's drinking water "may present an imminent and
4 substantial endangerment to the health of persons" within the meaning of 42 U.S.C. § 300i.

5 144. In 40 C.F.R. § 141.63(d), EPA listed several best practices for public water
6 systems to follow to ensure that drinking water complies with the MCL for total coliforms. One
7 of these practices is the continual maintenance of positive water pressure in all parts of the
8 distribution system, 40 C.F.R. § 141.63(d)(3), which prevents contaminants in the soil from
9 infiltrating water supply pipes in the distribution system.

10 145. In the past five years, GWA has not been able to ensure the continual maintenance
11 of positive water pressure in all parts of its distribution system. This failure has been due to
12 several problems, including GWA's recurring failure to properly maintain and operate its
13 drinking water wells, distribution system, and surface water treatment plant. As a result, the
14 people of Guam are frequently either without any water or experience very low water pressure for
15 extended periods of time.

16 146. GWA's failure to continually maintain positive water pressure in all parts of its
17 distribution system is dangerous because any cracks or leaks in GWA's poorly maintained
18 underground pipes will allow contaminants in the soil to be drawn into the distribution system.
19 Thus, the failure to continually maintain positive water pressure could also lead to contamination
20 of the drinking water supplied by GWA when the pressure is eventually restored in the system.

21 147. In light of not only the levels of coliform bacteria, especially fecal coliform,
22 frequently found in GWA's public water systems and underground sources of drinking water but
23 also GWA's repeated failure to maintain an adequate chlorine residual in the water in its
24 distribution system, GWA's failure to continually maintain positive water pressure in all parts of
25 its distribution system "may present an imminent and substantial endangerment to the health of
26 persons" within the meaning of 42 U.S.C. § 300i.

1 148. Since June 2000, GWA, after consultation with the Guam Environmental
2 Protection Agency, has issued "boil water" notices to the public on at least the following
3 occasions: June 21-23, 2000, March 13 - May 25, 2001, July 10 - September 11, 2002, and
4 October 15-18, 2002. On these occasions, the public has been informed that the water from the
5 tap must be boiled for one minute before it is used for human consumption, including drinking,
6 making ice, brushing teeth, washing dishes, and food preparation. See Attachment H to this
7 complaint for the "boil water" notice issued on March 13, 2001.

8 149. Despite these public notices, a portion of the public may have been exposed to
9 contaminated drinking water during the periods mentioned above due to factors such as
10 inadvertence, failure to receive the notice, or failure to heed the warnings.

11 150. In a letter to EPA dated September 19, 2002, the Guam Environmental Protection
12 Agency stated that GWA is not meeting many conditions of the administrative orders that the
13 Guam Environmental Protection Agency issued to GWA for violations of the SDWA. As a
14 result, the public in Guam is exposed to serious health risks on a daily basis. The Guam
15 Environmental Protection Agency requested EPA to initiate emergency enforcement action to
16 address the imminent threats to public health posed by GWA. The Guam Environmental
17 Protection Agency has cooperated with EPA and provided assistance to EPA in confirming the
18 correctness of the information on which this action is based.

19 151. Despite the best efforts of the Guam Environmental Protection Agency, Guam and
20 local authorities have not taken sufficient action to protect the health of persons using GWA's
21 public water systems.

22 152. Unless enjoined by an order of the Court pursuant to SDWA Section 1431, 42
23 U.S.C. § 300i, GWA will continue to violate the SDWA and the National Primary Drinking
24 Water Regulations.

25 **PRAYER FOR RELIEF**

26 WHEREFORE, the United States of America respectfully requests that the Court:
27

1 1. Issue a preliminary and permanent injunction that: (i) enjoins GWA, pursuant to
2 CWA Sections 309(b) and 504, 33 U.S.C. §§ 1319(b), 1364, from discharging pollutants except
3 as expressly authorized by the Clean Water Act and its NPDES permits; (ii) orders GWA,
4 pursuant to CWA Sections 309(b) and 504, 33 U.S.C. §§ 1319(b), 1364, to undertake a program
5 to achieve permanent, consistent compliance with all the terms and conditions of the applicable
6 NPDES permits as well as the CWA and the regulations promulgated thereunder; (iii) enjoins
7 GWA pursuant to SDWA Sections 1414(b) and 1431, 42 U.S.C. §§ 300g-3(b), 300i, from
8 violating the Safe Drinking Water Act or the National Primary Drinking Water Regulations; and
9 (iv) orders GWA, pursuant to SDWA Sections 1414(b) and 1431, 42 U.S.C. §§ 300g-3(b), 300i,
10 to undertake a program to achieve permanent, consistent compliance with the SDWA and the
11 regulations promulgated thereunder;

12 2. To the extent that GWA does not promptly comply with the requirements of an
13 Order issued pursuant to Paragraph 1, appoint a receiver to ensure and oversee that GWA
14 immediately takes all necessary measures to ensure that: (i) its POTW is fully in compliance
15 with the CWA and applicable NPDES permits, and (ii) its public water systems fully comply
16 with the SDWA, including the MCL for total coliforms and the treatment technique for turbidity,
17 and provide potable drinking water to the people of Guam;

18 3. Assess civil penalties against GWA pursuant to CWA Section 309(b) and (d), 33
19 U.S.C. § 1319(b) and (d), of up to \$27,500 per day for each day of each violation of the
20 applicable NPDES permits, the CWA, and the regulations promulgated thereunder;

21 4. Assess civil penalties against GWA pursuant to SDWA Section 1414(b), 42
22 U.S.C. § 300g-3(b), of up to \$27,500 per day for each day of each violation of the SDWA or any
23 of the National Primary Drinking Water Regulations;

24 5. Order that GovGuam is liable, pursuant to CWA Section 309(e), 33 U.S.C.
25 § 1319(e), for payment of any judgment entered against GWA under CWA Section 309 to the
26 extent that the laws of Guam prevent GWA from raising revenues needed to comply with such
27


1 judgment;

2 6. Award costs and disbursements of this action to the plaintiff; and

3 7. Grant such other relief as the Court may deem just and proper.

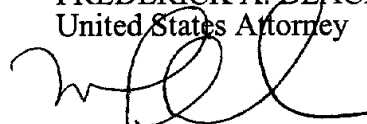
5 Respectfully submitted,

8 Dated: 20 DEC 2002

7
9 
10 THOMAS L. SANSONETTI
11 Assistant Attorney General
12 Environment and Natural Resources Division
13 United States Department of Justice

14 Dated: 20 DEC 2002

12 FREDERICK A. BLACK
13 United States Attorney

13 

14 MIKEL W. SCHWAB
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16 Attorneys for Plaintiff
17 UNITED STATES OF AMERICA

18 **OF COUNSEL:**

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20 U.S. Environmental Protection Agency
21 Region IX
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23 San Francisco, California 94105

ATTACHMENT A

Attachment A
TABLE 1

Name of Discharger: Guam Waterworks Authority
Agana Sewage Treatment Plant, Guam

NPDES Permit No.: GU0020087

Reporting Period: January 1998 through September 2002

<u>Permit</u> <u>Condition</u>	<u>Pollutant</u> <u>Constituent</u>	<u>Effluent</u> <u>Limitation</u>	<u>Month</u> <u>And Year</u>	<u>Value(s) Reported</u> <u>in Violation</u>
A.1.a	Biochemical Oxygen Demand	80 mg/L Monthly Average	Apr. 98	107
			June 98	87
			July 98	92
			Aug. 98	83
			Sept. 98	82
			Oct. 98	103
			June 99	97
			Sept. 99	90
			Nov. 99	110
			Dec. 99	90
			Jan. 00	125
			Feb. 00	98
			Mar. 00	104
			Apr. 00	133
			May 00	126
			June 00	106
			July 00	123
			Aug. 00	121
			Sept. 00	127
			Oct. 00	171
			Nov. 00	177
			Dec. 00	173
			Jan. 01	196
			Feb. 01	171
			Mar. 01	158
			Apr. 01	148
			May 01	207
			June 01	116
			July 01	88
			Aug. 01	83

TABLE 1 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a	Biochemical Oxygen Demand	80 mg/L Monthly Average	Sept. 01	158
			Oct. 01	159
			Nov. 01	128
			Dec. 01	119
			Jan. 02	123
			Feb. 02	111
			Mar. 02	91
			Apr. 02	99
			May 02	94
			June 02	96
			Jan. 00	8,485
			Feb. 00	8,133
			Mar. 00	8,430
			Apr. 00	9,867
			May 00	9,590
			July 00	8,981
			Sept. 00	9,611
			Oct. 00	12,811
			Nov. 00	12,943
			Dec. 00	13,718
			Jan. 01	14,374
			Feb. 01	13,484
			Mar. 01	11,464
			Apr. 01	10,241
			May 01	14,941
			June 01	8,608
			Sept. 01	11,289
			Oct. 01	11,933
			Nov. 01	9,244
			Jan. 02	9,023
			Feb. 02	8,209
			Jan. 00	8,485
			Feb. 00	8,133
			Mar. 00	8,430
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			Mar. 00	8,430
			Apr. 00	9,867
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			Sept. 01	11,289
			Oct. 01	11,933
			Nov. 01	9,244
			Jan. 02	9,023
			Feb. 02	8,209
			Jan. 00	8,485
			Feb. 00	8,133

TABLE 1 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Biochemical Oxygen Demand	160 mg/L Daily Maximum	Dec. 00	211, 193
			Jan. 01	184
				183, 282
			Feb. 01	169
			Mar. 01	174
			Apr. 01	199
				170
			May 01	266
				197
				186
				177
			June 01	254
			Sept. 01	234
			Oct. 01	203
				200
			Jan. 02	189
		16,022 lbs./day Daily Maximum	Oct. 00	17,602
			Jan. 01	21,049
			Feb. 01	18,655
			May 01	19,877
			June 01	18,790
			Sept. 01	16,393
	Suspended Solids	60 mg/L Monthly Avg.	June 98	61
			July 98	65
			Sept. 98	84
			Nov. 99	110
			Jan. 00	66
			Apr. 00	65
			May 00	74
			Sept. 00	61
			Oct. 00	72
			Nov. 00	68
			Dec. 00	82
			Jan. 01	74
			Feb. 01	64
			Mar. 01	62

TABLE 1 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a	Suspended Solids	60 mg/L Monthly Avg	May 01	66
			Oct. 01	74
			Dec. 01	75
			Mar. 01	72
	Suspended Solids	6,008 lbs./day Monthly Avg.	Sept. 98	6,130
			Dec. 00	6,197
		120 mg/L Daily Maximum	Sept. 98	184
				176
			Nov. 99	190
				150
			Apr. 00	128
			May 00	168
				164
			Sept. 00	132
			Dec. 00	136
			Dec. 01	126
		12,016 lbs./day Daily Max.	Sept. 98	13,274
			Nov. 99	12,994
			May 00	12,246
			Sept. 00	12,143
	Settleable Solids	1.0 ml/L Monthly Avg.	Oct. 00	1.2
			Nov. 00	1.7
			Jan. 01	2.1
			Feb. 01	1.4
			Aug. 01	1.3
			Oct. 01	1.1
			Nov. 01	2.4
			Jan. 02	1.5
			Feb. 02	2.2
			Mar. 02	3.2
			Apr. 02	4.0
			May 02	1.3

TABLE 1 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Settleable Solids	2.0 ml/L Daily Max.	Feb. 98	3.0
				3.0
			Apr. 98	3.0
			July 98	3.0
			Sept. 98	5.0
				2.5
				3.0
			Jan. 99	3.0
			May 00	4.0
				3.0
			Oct. 00	7.0
				2.5
				4.0
			Nov. 00	17.0
			Dec. 00	3.0
			Jan. 01	10.0
				2.5
				3.5
				3.0
				3.0
				3.5
				3.0
				2.5
			Feb. 01	4.0
				7.0
			June 01	3.0
			July 01	3.0
			Aug. 01	5.1
			Sept. 01	2.5
			Oct. 01	3.5
				3.5
			Nov. 01	2.5
				2.4
				2.3
				3.0
				2.4
				3.2
				3.5
				3.0, 4.0

TABLE 1 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Settleable Solids	2.0 ml/L Daily Max.	Feb. 02	3.3 2.5 2.5
			Mar. 02	3.8, 2.8 2.5, 3.8
			Apr. 02	2.9, 2.6 3.8, 6.6

Receiving Water Monitoring Data

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Guam Water Quality Std.</u>	<u>Month And Year</u>	<u>Station and Value(s) Reported in Violation</u>
	Fecal Coliform	400 CFU/100 ml	Mar. 98	Station D TNTC
	Bacteria	Maximum	Apr. 98	Station D >400
			July 98	Station A TNTC Station B TNTC Station C TNTC
			Sept. 98	Station D TNTC
			Dec. 98	Station A,B,C NP/R Station D TNTC
			Jan. 99	Station A TNTC Station B TNTC Station C TNTC
			Mar. 99	Station B TNTC Station D TNTC
			June 99	Station D TNTC Station E TNTC
			Aug. 99	Station D TNTC
			Sept. 99	Station A TNTC
			Nov. 99	Station A TNTC
			Dec. 99	Station D TNTC
			Jan.-Mar. 00	Station D,E,F NP/R
			Apr.-June 00	Station D,E,F NP/R
			July-Sept. 00	All Stations NP/R
			Oct.-Nov. 00	All Stations NP/R

Receiving Water Monitoring Data Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Guam Water Quality Std.</u>	<u>Month And Year</u>	<u>Station and Value(s) Reported in Violation</u>
	Fecal Coliform Bacteria	400 CFU/100 ml Maximum	Jan.-Mar. 01 (except Stations A,B&C Mar. 01) Apr.-June 01 June 01 July-Sept. 01 Oct. 01 Oct.-Dec. 01 Feb. 02 Jan.-Mar. 02 Apr.-June 02	All Stations NP/R Station D,E,F NP/R Station A,B,C TNTC Station D TNTC Station A TNTC Station D,E,F NP/R Station A,B,C TNTC Station D,E,F NP/R All Stations NP/R

No DMRs were submitted for the period of July to September, 2002.

CFU = Colony Forming Units

NP/R = Not Performed/Reported

TNTC = Too Numerous To Count

TABLE 2

Name of Discharger: Guam Waterworks Authority
Agat Sewage Treatment Plant, Guam

NPDES Permit No.: GU0020222

Reporting Period: January 1998 through September 2002

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a	Total Coliform Bacteria	70 CFU/100 ml Monthly Average	Jan. 98 thru	>400
			Dec. 98	
			Jan. 99 thru	>400
			Dec. 99	
			Jan. 00	>70
			Feb. 00	>70
			Mar. 00	>400
			Apr. 00	>400
			May 00	364,000,000
			June 00	128,000,000
			July 00	133,000,000
			Aug. 00	168,000,000
			Sept. 00	270,000,000
			Oct. 00	74,211,111
			Nov. 00	73,966,666
			Dec. 00	28,912,500
			Jan. 01	28,912,500
			Feb. 01	29,933,333
			Mar. 01	NP/R
			Apr. 01	24,400,000
			May 01	18,400,000
			June 01	>24,192
			July 01	>24,192
			Aug. 01	>296,596
			Sep. 01	>296,596
			Oct. 01	>23,550
			Nov. 01	>329,950
			Dec. 01	TNTC
			Jan. 02	>26,500
			Feb. 02	960,000
			Mar. 02	163,000

TABLE 2 - Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Fecal Coliform Bacteria	200 CFU/100 ml	Apr. 02	NP/R
		Monthly Average (revised permit)	May 02	NP/R
			June 02	NP/R
	Total Coliform Bacteria	400 CFU/100 ml Daily Maximum	Jan. 98 thru	>400(50)
			Dec. 98	
			Jan. 99 thru	>400(51)
			Dec. 99	
			Jan. 00 thru	>400(13)
			Mar. 00	
			Apr. 00	TNTC
				3,200,000
				450,000,000
				340,000,000
			May 00	440,000,000
				441,000,000
				230,000,000
				320,000,000
				420,000,000
			June 00	260,000,000
				116,000,000
				84,000,000
				54,000,000
			July 00	340,000,000
				52,000,000
				74,000,000
				68,000,000
			Aug. 00	410,000,000
				57,000,000
				NP/R
				NP/R
			Sept. 00	626,000,000
				339,000,000
				88,000,000
				28,000,000
			Oct. 00	8,333,333
				17,300,000
				197,000,000
				NP/R

TABLE 2 Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Total Coliform Bacteria	400 CFU/100 ml Daily Maximum	Nov. 00	161,500,000
				30,700,000
			Dec. 00	NP/R
				NP/R
				12,200,000
				22,750,000
				54,850,000
				25,850,000
			Jan. 01	12,200,000
				22,750,000
				54,850,000
				25,850,000
			Mar. 01	NP/R
			Feb. 01	12,200,000
				22,750,000
				54,850,000
	Fecal Coliform Bacteria	400 CFU/100 ml Weekly Average	Apr. 01	30,550,000
				19,900,000
				22,750,000
			May 01	14,350,000
				26,500,000
				14,350,000
			June 01	>24,192
				>24,192
				NP/R
				>24,192
			July 01	>24,192
				NP/R
				NP/R
				NP/R
			Aug. 01	>24,192
				>24,192
				>24,192
				98,000
			Sep. 01	1,040,000
				>24,192
				1,310,000
				27,000
				4,000

TABLE 2 Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Fecal Coliform Bacteria	400 CFU/100 ml Weekly Average	Oct. 01	4,000
				TNTC
				TNTC
				43,100
			Nov. 01	TNTC
				TNTC
				13,900
				646,000
			Dec. 01	TNTC
				TNTC
				TNTC
				TNTC
			Jan. 02	31,000
				TNTC
				22,000
				TNTC
			Feb. 02	TNTC
				NP/R
				150,000
				1,770,000
			Mar. 02	270,000
				70,000
				TNTC
				150,000
			Apr. 02	NP/R
			May 02	NP/R
			June 02	NP/R

TABLE 2 Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Biochemical Oxygen Demand	70 mg/L Monthly Avg.	Jan. 98	79
			Feb. 98	73
			Apr. 98	73
			May 98	72
			Aug. 98	75
			June 99	80
			Jan. 00	88
			Feb. 00	78
			Jan. 01	78
			Feb. 01	81
			Mar. 01	82
		30 mg/L Monthly Avg. (revised permit)	Apr. 01	73
			May 01	102
			June 01	68
			July 01	36
			Sep. 01	69
			Oct. 01	62
			Nov. 01	83
			Dec. 01	56
			Jan. 02	33
			Feb. 02	66
			Apr. 02	73
			May 02	50
			June 02	NP/R
		876 lbs./day Monthly Avg.	June 99	921
			Jan. 01	1,121
			Feb. 01	1,262
			Mar. 01	1,124

TABLE 2 Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Biochemical Oxygen Demand	375 lbs./day Monthly Avg. (revised permit)	Apr. 01	779
			May 01	954
			June 01	571
			July 01	474
			Sep. 01	850
			Oct. 01	880
			Nov. 01	1,175
			Dec. 01	606
			Jan. 02	492
			Feb. 02	722
			Apr. 02	611
			May 02	491
			June 02	NP/R
	Biochemical Oxygen Demand	45 mg/L Weekly Average (revised permit)	Apr. 01	63
				50
				74
				105
			May 01	51
				154
				101
				101
			June 01	86
				51
				63
				74
			July 01	47
				63
			Sept. 01	47, 62
				105
				61
			Oct. 01	66
				60
				79
			Nov. 01	79, 138
				73
			Dec. 01	53
				108
				52

TABLE 2 Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Biochemical Oxygen Demand	45 mg/L Weekly Average (revised permit)	Feb. 02	94
				67
			Apr. 02	68
				79
			May 02	51
				58
				51
			June 02	NP/R
	Biochemical Oxygen Demand	563 lbs./day Weekly Average (revised permit)	Apr. 01	788
				834
				617
				876
			May 01	1,284
				842
				1,264
			June 01	719
				617
			July 01	980
			Aug. 01	667
			Sep. 01	776
				1,314
				763
			Oct. 01	587
				1,001
				1,384
			Nov. 01	1,318
				2,302
				609
			Dec. 01	1,257
			Jan. 02	751
				732
			Feb. 02	917
				838
			Apr. 02	656
				567
			May 02	723
			June 02	NP/R

TABLE 2 Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Suspended Solids	65 mg/L	July 98	68
		Monthly Avg.	Jan. 00	76
			Apr. 00	73
	Total Suspended Solids	30 mg/L	Apr. 01	62
		Monthly Avg. (revised permit)	May 01	135
			June 01	130
			July 01	58
			Aug. 01	47
			Sep. 01	45
			Oct. 01	34
			Nov. 01	62
			Dec. 01	45
			Feb. 02	57
			Mar. 02	55
			Apr. 02	41
			May 02	43
			June 02	62
	Suspended Solids	814 lbs./day	Jan. 01	915
		Monthly Avg.	Feb. 01	870
	Total Suspended Solids	375 lbs./day	Apr. 01	634
		Monthly Avg. (revised permit)	May 01	1,207
			June 01	1,080
			July 01	723
			Aug. 01	906
			Sep. 01	560
			Oct. 01	454
			Nov. 01	817
			Dec. 01	476
			Jan. 02	462
			Feb. 02	658
			Mar. 02	646
			May 02	470
			June 02	684

TABLE 2 Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a. Total Suspended Solids		45 mg/L Weekly Average (revised permit)	Apr. 01	50
				120
			May 01	92
				166
				198
				82
			June 01	158
				106
				112
				142
			July 01	90
				104
			Aug. 01	112
			Sep. 01	50
				60
				56
			Oct. 01	48
				48
			Nov. 01	88
				58
				60
			Dec. 01	110
			Feb. 02	94
			Mar. 02	136
			Apr. 02	50
			May 02	75
				56
			June 02	72
				124

TABLE 2 Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Total Suspended Solids	563 lbs./day Weekly Average (revised permit)	Apr. 01	667
				1,001
			May 01	767
				1,384
				1,651
				1,026
			June 01	1,318
				884
				934
				1,184
			July 01	1,501
				867
			Aug. 01	1,868
				1,111
			Sep. 01	626
				751
				701
			Oct. 01	841
			Nov. 01	1,468
				967
			Dec. 01	1,257
			Jan. 02	1,259
			Feb. 02	1,176
			Mar. 02	1,701
			May 02	1,078
			June 02	1,201
	Settleable Solids	1.0 ml/L Monthly Avg.	Feb. 98	2.1
			Apr. 98	1.1
			May 98	1.3
			Oct. 99	1.7
			Nov. 99	1.2
			May 00	2.2
			June 00	1.6
			Aug. 00	1.2
			Jan. 01	1.1

TABLE 2 Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Settleable Solids	2.0 ml/L Daily Maximum	Feb. 98	4.0
			Mar. 98	2.1
			Oct. 99	3.0
			Nov. 99	3.0
			Jan. 00	2.1
			Mar. 00	3.0
			Aug. 00	3.0
	Enterococci	35 CFU/100 ml Monthly Average (revised permit)	Apr. 01	>19,498
			May 01	>24,192
			June 01	>24,192
			July 01	>24,192
			Aug. 01	>24,192
			Sep. 01	>24,192
			Oct. 01	>15,662
			Nov. 01	55,175
			Dec. 01	59,815
			Jan. 02	>38,641
			Feb. 02	17,523
			Mar. 02	15,662
			Apr. 02	55,871
			May 02	66,250
			June 02	77,840

TABLE 2 Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
1.A.a.	Enterococci	57 CFU/100 ml Daily Maximum (revised permit)	Apr. 01	>24,192
				10,111
				>24,192
			May 01	>24,192
				>24,192
				>24,192
				>24,192
			June 01	>24,192
				>24,192
				>24,192
				>24,192
			July 01	>24,192
				>24,192
				>24,192
				>24,192
			Aug. 01	>24,192
				>24,192
				NP/R
				>24,192
			Sep. 01	>24,192
				>24,192
				>24,192
				>24,192
			Oct. 01	>24,192
				>24,192
				7,215
				6,890
			Nov. 01	75,600
				62,900
				79,200
				3,000

TABLE 2 Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a	Copper	0.060 lb./day Daily Maximum (revised permit)	Aug. 01	0.137
			Sep. 01	NP/R
			Oct. 01	0.087
			Nov. 01	0.135
			Jan. 02	0.092
			Feb. 02	NP/R
			Mar. 02	0.133
			Apr. 02	NP/R
			May 02	NP/R
			June 02	NP/R
		2.9 µg/L Monthly Average (revised permit)	June 01	16.0
			July 01	6.8
			Aug. 01	4.7
			Sep. 01	NP/R
			Oct. 01	5.2
			Nov. 01	8.1
			Jan. 02	11.0
			Feb. 02	NP/R
			Mar. 02	9.4
			Apr. 02	NP/R
			May 02	NP/R
			June 02	NP/R
		4.8 µg/L Daily Maximum (revised permit)	June 01	16.0
			July 01	6.8
			Sep. 01	NP/R
			Oct. 01	5.2
			Nov. 01	8.1
			Jan. 02	11.0
			Feb. 02	NP/R
			Mar. 02	9.4
			Apr. 02	NP/R
			May 02	NP/R
			June 02	NP/R

TABLE 2 Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Aluminum	1.520 lb./day	June 01	12.51
		Monthly Average (revised permit)	July 01	10.43
			Sep. 01	NP/R
			Oct. 01	3.33
			Nov. 01	4.00
			Jan. 02	2.419
			Feb. 02	NP/R
			Mar. 02	5.813
			Apr. 02	NP/R
			May 02	NP/R
			June 02	NP/R
		120 µg/L	June 01	1,500
		Monthly Average (revised permit)	July 01	500
			Sep. 01	NP/R
			Oct. 01	200
			Nov. 01	240
			Jan. 02	290
			Feb. 02	NP/R
			Mar. 02	410
			Apr. 02	NP/R
			May 02	NP/R
			June 02	NP/R
		200 µg/L	June 01	1,500
		Daily Maximum (revised permit)	July 01	500
			Sep. 01	NP/R
			Nov. 01	240
			Jan. 02	290
			Feb. 02	NP/R
			Mar. 02	410
			Apr. 02	NP/R
			May 02	NP/R
			June 02	NP/R

TABLE 2 Continued

Shoreline Receiving Waters

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Guam Water Quality Std.</u>	<u>Month And Year</u>	<u>Station and Value(s) Reported in Violation</u>
	Enterococci	104 CFU/100 ml	Feb. 02	Station TS-1 300
	Orthophosphate	0.05 mg/L	Jan. 02	Station TS-1 0.313
			Feb. 02	Station TS-1 0.392
			Mar. 02	Station TS-1 0.144
			Apr. 02	All Stations NP/R
			May 02	All Stations NP/R
			June 02	All Stations NP/R

No DMRs were submitted for the period of July to September, 2002.

CFU = Colony Forming Units

NP/R = Not Performed/Reported

TNTC = Too Numerous To Count

Note: Numbers in () refer to the number of times the daily maximum effluent limitations were exceeded for the respective period.

TABLE 3

Name of Discharger: Guam Waterworks Authority
Baza Gardens Sewage Treatment Plant, Guam

NPDES Permit No.: GU0020095

Reporting Period: January 1998 through September 2002

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Total Coliform Bacteria	70 CFU/100 ml Monthly Average	Jan. 98	>400
			Mar. 98	>400
			Apr. 98	>400
			May 98	>400
			June 98	>400
			July 98	>400
			Aug. 98	>400
			Sept. 98	>400
			Oct. 98	>400
			Nov. 98	>400
			Dec. 98	>400
			Jan. 99	>400
			Feb. 99	>400
			Mar. 99	>400
			Apr. 99	>400
			May 99	>400
			June 99	>400
			July 99	>400
			Aug. 99	>400
			Sept. 99	>400
			Oct. 99	>400
			Nov. 99	>400
			Dec. 99	>400
			Jan. 00	>70
			Feb. 00	>70
			Mar. 00	>70
			Apr. 00	>70
			May 00	27,930,000
			June 00	15,033,333
			July 00	23,000,000
			Aug. 00	28,644,440

TABLE 3 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	<i>E. coli</i>	126 CFU/100 ml Monthly Average	Sept. 00 ⁽¹⁾	94,725,000
			Oct. 00 ⁽¹⁾	9,900,000
			Nov. 00 ⁽¹⁾	22,646,666
			Dec. 00 ⁽¹⁾	3,028,334
			Jan. 01 ⁽¹⁾	1,868,889
			Feb. 01 ⁽¹⁾	4,020,000
			Mar. 01	>24,192
			Apr. 01	>24,192
			May 01	>24,192
			June 01	>24,192
			July 01	>16,794
			Aug. 01	>15,870
			Sep. 01	>24,192
			Oct. 01	>45,456
			Nov. 01	>40,823
			Dec. 01	>18,204
			Jan. 02	>271,667
			Feb. 02	>12,216
			Mar. 02	335,000
			Apr. 02	NP/R
			May 02	NP/R
			June 02	NP/R

TABLE 3 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a. Total	Coliform Bacteria	400 CFU/100 ml Daily Maximum	Jan. 98	>400 (3)
			Feb. 98	>400 (3)
			Mar. 98	>400 (5)
			Apr. 98	>400 (4)
			May 98	>400 (4)
			June 98	>400 (5)
			July 98	>400 (4)
			Aug. 98	>400 (4)
			Sept. 98	>400 (5)
			Oct. 98	>400 (4)
			Nov. 98	>400 (4)
			Dec. 98	>400 (5)
			Jan. 99	>400 (4)
			Feb. 99	>400 (4)
			Mar. 99	>400 (5)
			Apr. 99	>400 (4)
			May 99	>400 (4)
			June 99	>400 (5)
			July 99	>400 (4)
			Aug. 99	>400 (5)
			Sept. 99	>400 (4)
			Oct. 99	>400 (4)
			Nov. 99	>400 (5)
			Dec. 99	>400 (4)
			Jan. 00	>400 (4)
			Feb. 00	2,150,000
				9,650,000
				186,000,000
				>10,000,000
			Mar. 00	305,000
				39,000,000
				>10,000,000
				256,333
			Apr. 00	88,000,000
				13,000
				3,900,000
				31,000,000
			May 00	44,500,000

TABLE 3 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Total Coliform Bacteria	400 CFU/100 ml Daily Maximum	May 00	18,500,000
				11,150,000
				29,000,000
				>400 (4)
			June 00	36,500,000
				17,000,000
				26,000,000
			July 00	2,000,000
				30,000,000
				20,000,000
				13,000,000
			Aug. 00	29,000,000
				38,000,000
				16,933,333
				31,000,000
	<i>E. coli</i>	406 CFU/ 100 ml Daily Maximum	Sept. 00 ⁽¹⁾	291,533,333
				80,800,000
				5,066,667
			Oct. 00 ⁽¹⁾	14,233,333
				5,933,333
				9,533,333
			Nov. 00 ⁽¹⁾	52,200,000
				1,740,000
				14,000,000
			Dec. 00 ⁽¹⁾	4,466,667
				3,220,000
				2,676,667
			Jan. 01 ⁽¹⁾	1,860,000
				1,380,000
				633,333
			Feb. 01 ⁽¹⁾	3,593,333
				3,710,000
				2,176,666
			Mar. 01	6,173,333
				>24,192
			Apr. 01	>24,192
			May 01	>24,192 (4)

TABLE 3 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	<i>E. coli</i>	406 CFU/100 ml Daily Maximum	June 01	>24,192 NP/R >24,192 NP/R
			July 01	5,794 >24,192 >24,192 12,997
			Aug. 01	>24,192 959 14,136 >24,192
			Sep. 01	>24,192 >24,192 >24,192 >24,192
			Oct. 01	NP/R >24,192 NP/R 66,900
			Nov. 01	3,200 24,192 800 135,100
			Dec. 01	>24,192 (3)
			Jan. 02	73,000 TNTC 301,000 441,000
			Feb. 02	TNTC 20,000 110,000
			Mar. 02	1,170,000 70,000 70,000 30,000
			Apr. 02	NP/R
			May 02	NP/R
			June 02	NP/R

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TABLE 3 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a	Biochemical Oxygen Demand	30 mg/L Monthly Average	Jan. 98	46
			Feb. 98	31
			Apr. 98	42
			May 98	35
			June 98	37
			July 98	31
			Aug. 98	49
			Sept. 98	39
			Oct. 98	53
			Nov. 98	33
			Dec. 98	40
			Jan. 99	36
			Feb. 99	43
			Mar. 99	54
			Apr. 99	50
			May 99	44
			June 99	53
			July 99	39
			Nov. 99	43
			Mar. 00	31
			Apr. 00	35
			May 00	37
			June 00	33
			July 00	31
			Aug. 00	42
			Nov. 00	48
			Dec. 00	42
			Jan. 01	59
			Feb. 01	60
			Mar. 01	57
			Apr. 01	52
			May 01	41
			July 01	42
			Sept. 01	49

Table 3 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Biochemical Oxygen Demand	30 mg/L Daily Maximum	Oct. 01	53
			Nov. 01	38
			Dec. 01	43
			Jan. 02	41
			Mar. 02	36
			Apr. 02	32
			June 02	NP/R
	Biochemical Oxygen Demand	60 mg/L Daily Maximum	Aug. 98	61
			Oct. 98	65
			Nov. 99	65
		45 mg/L ⁽²⁾ Weekly Average	Nov. 00	57
				48
				46
			Dec. 00	53
			Jan. 01	73
				72
			Feb. 01	66
				75
			Mar. 01	57
				53
				77
			Apr. 01	60
				46
				58
			May 01	46
			July 01	68
			Sept. 01	62, 105
			Oct. 01	NP/R
				62
				58
			Nov. 01	53
			Dec. 01	46
				48
			Jan. 02	55
				54
			Mar. 02	60
			May 02	47

Table 3 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Biochemical Oxygen Demand	45 mg/L ⁽²⁾ Weekly Average	June 02	NP/R
		150 lbs./day	Jan. 98	170
		Monthly Average	Aug. 98	198
			Sept. 98	171
			Oct. 98	229
			Dec. 98	178
			Feb. 99	185
			Mar. 99	198
			Apr. 99	188
			May 99	157
			June 99	193
			July 99	153
			Nov. 99	183
			Aug. 00	162
			Nov. 00	203
			Dec. 00	160
			Jan. 01	234
			Feb. 01	225
			Mar. 01	180
			Apr. 01	163
			Sep. 01	178
			Oct. 01	184
			Apr. 02	989
			June 02	NP/R
		300 lbs./day	Oct. 98	301
		Daily Maximum		
		225 lbs./day ⁽²⁾	Nov. 00	226
		Weekly Average		239
			Jan. 01	289
				288
			Feb. 01	256
				272
			Mar. 01	232
			July 01	247

TABLE 3 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a	Nitrate-Nitrogen	2.5 lbs./day ⁽²⁾ Daily Maximum	June 01	2.95
				NP/R
				3.01
				NP/R
			July 01	2.67
			Aug. 01	3.98
				3.01
			Oct. 01	NP/R
			Nov. 01	5.52
				3.15
			Jan. 02	1,680
				481
				972
				1,508
			Feb. 02	507
				1,635
				1,532
				1,912
	Orthophosphate	0.1 mg/L ⁽²⁾ Daily Maximum	Mar. 02	1,390
				837
				2,849
				1,561
			Apr. 02	25.49
			May 01	0.425
			July 01	0.169
				0.160
			Aug. 01	0.110
				0.344
				0.499
			Sept. 01	0.685
				0.193
				0.961
			Oct. 01	NP/R
				0.159
			Nov. 01	0.254
				0.393
				0.980
			Dec. 01	0.137, 0.69

TABLE 3 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Orthophosphate	0.1 mg/L ⁽²⁾ Daily Maximum	Feb. 02	0.106
				0.493
			Apr. 02	1.82
			May 02	1.09
				0.901
				1.09
			June 02	1.06
		0.5 lb./day ⁽²⁾ Daily Maximum	May 01	1.471
			July 01	0.55
				0.59
			Aug. 01	0.68
				2.11
				2.04
			Sep. 01	2.23
				0.71
				3.41
			Oct. 01	NP/R
				0.53
			Nov. 01	0.91
				1.56
				3.28
			Dec. 01	2.23
			Jan. 02	210
				54
				46
				318
			Feb. 02	363
				3,614
				113
				215
			Mar. 02	159
				29
				361
				123
			Apr. 02	45.4
			May 02	3.6, 204
				3.58
			June 02	4.23

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TABLE 3 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Turbidity	1 NTU ⁽²⁾	May 01	NP/R (4)
		Daily Maximum	June 01	NP/R (4)
			July 01	NP/R (2)
				16.7
				13.0
			Aug. 01	20.4
				4.5
				9.5
				5.0
			Sep. 01	2.6
				NP/R
				77.6
				2.3
			Oct. 01	NP/R (3)
				26.1
			Nov. 01	22.7
				27.0
				NP/R
				20.1
			Dec. 01	35.9
				45.5
				10.7
				83.7
			Jan. 02	70.5
				47.9
				28.6
				26.6
			Feb. 02	32.7
				31.5
				20.5
				28.5
			Mar. 02	32.7, 27.3
				43.0, 30.1
			Apr. 02	69.6
			May 02	28.4, 14.0
				17.6, 17.8
			June 02	23.9, 20.0
				20.7, 17.8

TABLE 3 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Water Quality Standard</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
	Enterococci	108 CFU/100 ml	Feb.-Mar. 01	Station C,D,E >24,192
		Instantaneous	Apr.-June 01	Station C 9,804
				>24,192
				>24,192
				14,136
				2,242
				3,811
				Station D 12,033
				>24,192
				>12,192
				9,208
				2,029
				1,961
				Station E 9,804
				>24,192
				>24,192
				9,208
				2,646
				2,381
			July-Sept. 01	Station C 15,531
				12,996
				19,862
				16,996
				>24,192
				Station D 19,863
				10,462
				15,530
				12,033
				17,329
				Station E 24,192
				17,328
				6,893
				10,462
				17,329
			Oct.-Dec. 01	Station C 1,137
				1,870, 970
				1,610
				3,180
				13,130

TABLE 3 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Water Quality Standard</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>	
	Enterococci	108 CFU/100 ml Instantaneous	Oct.-Dec. 01	Station D	1,541 2,160 1,480 4,260 8,360
				Station E	3,130 2,460 730 1,890 860 9,600
			Jan.-Mar. 02	Station C	3,090 1,100 2,950 1,080 4,720 6,950
			Apr.-June 02	All Stations	NP/R

No DMRs were submitted for the period of July to September, 2002.

CFU = Colony Forming Units

NP/R = Not Performed/Reported

TNTC = Too Numerous To Count

Note: Numbers in () refer to the number of times the daily maximum effluent limitations were exceeded for the respective period.

1. A new NPDES permit was issued to GWA (effective date 9/7/00) that changed the bacteriological effluent parameter from total coliform to *E. coli* (126 CFU/100 ml monthly average and 406 CFU/100 ml daily maximum). GWA did not make the necessary changes in its bacteriological analysis from total coliform to *E. coli* in accordance with its new permit requirements. Therefore, "Values Reported in Violation" for the period of September 2000 to February 2001 are for fecal coliform bacteria and not *E. coli*.

2. Effluent limitations based on new NPDES permit issued with an effective date of 9/7/2000.

TABLE 4

Name of Discharger: Guam Waterworks Authority
Northern District Sewage Treatment Plant, Guam

NPDES Permit No.: GU0020141

Reporting Period: January 1998 through September 2002

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a	Suspended Solids	50 mg/L Monthly Average	Jan. 98	68
			Feb. 98	98
			Mar. 98	78
			Apr. 98	63
			May 98	60
			June 98	155
			July 98	145
			Aug. 98	125
			Sept. 98	123
			Oct. 98	84
			Nov. 98	95
			Dec. 98	63
			Jan. 99	77
			Feb. 99	51
			May 99	90
			June 99	106
			July 99	84
			Aug. 99	100
			Sept. 99	110
			Oct. 99	67
			Dec. 99	74

TABLE 4 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Suspended Solids	50 mg/L Monthly Average	Jan. 00	224
			Feb. 00	138
			Mar. 00	129
			Apr. 00	96
			May 00	75
			June 00	102
			Aug. 00	105
			Sept. 00	91
			Oct. 00	85
			Nov. 00	121
			Dec. 00	76
			Jan. 01	NP/R
			Feb. 01	NP/R
			Mar. 01	NP/R
			Apr. 01	95
			May 01	69
			June 01	70
			July 01	67
			Sep. 01	77
			Oct. 01	72
			Dec. 01	100
			Mar. 02	61
			Apr. 02	67
			May 02	61
		100 mg/L Daily Maximum		
			Mar. 98	152
			June 98	244
				124
				150
				184
			July 98	216

TABLE 4 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Suspended Solids	100 mg/L Daily Maximum	Aug. 98	180, 152
			Sept. 98	176, 136, 144
			Nov. 98	108
			May 99	132, 130
			June 99	144
			July 99	102
			Aug. 99	140, 112
			Sept. 99	156, 128
			Nov. 99	130
			Dec. 99	118
			Jan. 00	336, 114, 316
				128
			Feb. 00	190, 148
			Mar. 00	160, 146
			May 00	104
			June 00	132, 120, 124
			Aug. 00	142
			Sept. 00	126
			Oct. 00	136
			Nov. 00	170, 150
			Dec. 00	112
			Jan. 01	NP/R
			Feb. 01	NP/R
			Mar. 01	NP/R
			May 01	134
			June 01	104
			Aug. 01	NP/R
			Sep. 01	118, 104
			Oct. 01	136
			Dec. 01	130, 141
			May 02	108
			June 02	140

TABLE 4 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Suspended Solids	2,504 lbs./day Monthly Average	Jan. 98	3,459
			Feb. 98	5,149
			Mar. 98	4,026
			Apr. 98	4,984
			May 98	3,159
			June 98	7,877
			July 98	7,750
			Aug. 98	7,077
			Sept. 98	6,871
			Oct. 98	4,617
			Nov. 98	5,285
			Dec. 98	3,439
			Jan. 99	4,128
			Feb. 99	2,790
			Mar. 99	2,628
			May 99	4,962
			June 99	5,866
			July 99	4,671
			Aug. 99	5,485
			Sept. 99	5,882
			Dec. 99	3,428
			Jan. 00	12,624
			Feb. 00	8,391
			Mar. 00	7,934
			Apr. 00	5,259
			May 00	3,431
			June 00	5,378
			Aug. 00	5,538
			Sept. 00	4,364
			Oct. 00	4,152
			Nov. 00	6,601
			Dec. 00	3,269
			Jan. 01	NP/R
			Feb. 01	NP/R
			Mar. 01	NP/R
			Apr. 01	5,117
			May 01	2,866

TABLE 4 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Suspended Solids	2,504 lbs./day Monthly Average	June 01	3,051
			July 01	2,982
			Sep. 01	3,158
			Oct. 01	3,193
			Dec. 01	4,355
			Mar. 02	2,748
			Apr. 02	3,089
			May 02	2,734
	Suspended Solids	5,008 lbs./day Daily Maximum	Feb. 98	5,149
			June 98	5,791
				12,617
				7,756
				9,207
			July 98	14,807
				5,494
				5,204
				5,494
			Aug. 98	5,671
				8,367
				10,358
				5,421
				7,486
				8,167
			Oct. 98	5,364
			Nov. 98	5,945
			Dec. 98	5,254
			Feb. 99	5,064
			May 99	7,596
				6,939
			June 99	8,407
				5,507
				5,313
			July 99	5,955
			Aug. 99	5,174
				6,352
				7,473
			Sept. 99	8,457
				6,939

TABLE 4 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Suspended Solids	5,008 lbs./day Daily Maximum	Nov. 99	7,373
			Dec. 99	6,889
			Jan. 00	7,227
				17,130
				18,775
				7,366
			Feb. 00	8,393
				12,043
			Mar. 00	9,619
				9,875
			Apr. 00	5,640
				5,338
				5,067
			May 00	5,551
			June 00	8,607
				5,835
				6,722
			Aug. 00	7,461
				5,149
				5,671
			Sept. 00	7,761
				5,252
			Oct. 00	7,486
			Nov. 00	9,357
				8,257
			Dec. 00	5,885
			Jan. 01	NP/R
			Feb. 01	NP/R
			Mar. 01	NP/R
			Apr. 01	5,504
			May 01	5,476
			Sep. 01	5,905
			Oct. 01	5,785
			Dec. 01	5,746
				5,997
			June 02	6,027

TABLE 4 Cont.

<u>Permit</u> <u>Condition</u>	<u>Pollutant</u> <u>Constituent</u>	<u>Effluent</u> <u>Limitation</u>	<u>Month</u> <u>And Year</u>	<u>Value(s) Reported</u> <u>in Violation</u>
A.1.a.	Biochemical Oxygen Demand	85 mg/L Monthly Average	Jan. 98	93
			Feb. 98	118
			Mar. 98	106
			Apr. 98	96
			May 98	94
			June 98	105
			July 98	144
			Sept. 98	108
			Oct. 98	107
			Jan. 99	115
			Feb. 99	86
			Mar. 99	100
			May 99	95
			June 99	109
			July 99	102
			Aug. 99	126
			Sept. 99	152
			Oct. 99	97
			Jan. 00	184
			Feb. 00	149
			Mar. 00	137
			Apr. 00	131
			May 00	152
			June 00	129
			Aug. 00	136
			Sept. 00	135
			Oct. 00	146
			Nov. 00	180
			Dec. 00	163
			Jan. - Mar. 01	NP/R
			Apr. 01	209
			May 01	122
			June 01	163
			Aug. 01	122
			Sep. 01	150
			Oct. 01	189
			Nov. 01	163
			Dec. 01	141
			Jan. 02	111

TABLE 4 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Biochemical Oxygen Demand	85 mg/L Monthly Average	Feb. 02	218
			Mar. 02	122
			Apr. 02	124
			May 02	112
			June 02	NP/R
		170 mg/L Daily Maximum	July 98	216
			Sept. 99	176
			Jan. 00	249
				207
			Feb. 00	174
			Nov. 00	187
				186
				185
			Dec. 00	205
			Jan. 01	NP/R
			Feb. 01	NP/R
			Mar. 01	NP/R
			Apr. 01	188
				229
			May 01	198
			June 01	276
			Aug. 01	191
			Sep. 01	234
			Oct. 01	197
				221
				212
			Nov. 01	197
				190
			Feb. 02	306
				252

TABLE 4 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Biochemical Oxygen Demand	4,256 lbs./day Monthly Average	Jan. 98	4,731
			Feb. 98	6,200
			Mar. 98	5,493
			Apr. 98	4,984
			May 98	5,001
			June 98	5,385
			July 98	7,594
			Aug. 98	4,391
			Sept. 98	6,022
			Oct. 98	5,883
			Nov. 98	4,632
			Dec. 98	4,401
			Jan. 99	6,254
			Feb. 99	4,684
			Mar. 99	5,504
			May 99	5,231
			June 99	6,082
			July 99	5,673
			Aug. 99	6,927
			Sept. 99	8,083
			Oct. 99	4,934
			Jan. 00	10,473
			Feb. 00	9,001
			Mar. 00	8,356
			Apr. 00	7,089
			May 00	6,416
			June 00	5,688
			Aug. 00	7,224

TABLE 4 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a	Biochemical Oxygen Demand	4,256 lbs./day Monthly Average	Sept. 00	6,251
			Oct. 00	6,424
			Nov. 00	9,803
			Dec. 00	6,442
			Jan. 01	NP/R
			Feb. 01	NP/R
			Mar. 01	NP/R
			Apr. 01	11,241
			May 01	5,112
			June 01	7,052
			Aug. 01	5,260
			Sep. 01	5,866
			Oct. 01	8,584
			Nov. 01	7,267
			Dec. 01	6,122
			Jan. 02	4,965
			Feb. 02	9,712
			Mar. 02	5,579
			Apr. 02	5,683
			May 02	5,017
			June 02	NP/R
		8,512 lbs./day Daily Maximum	July 98	11,709
			Aug. 99	9,641
			Sept. 99	9,541
			Jan. 00	11,221
				13,914
				9,783
			Feb. 00	9,868
				9,127
			Mar. 00	10,146
				9,196
			Sept. 00	8,829
			Oct. 00	8,697
			Nov. 00	10,293
				9,875
				10,238
				8,807

TABLE 4 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Biochemical Oxygen Demand	8,512 lbs./day Daily Maximum	Dec. 00	8,669
			Jan. 01	NP/R
			Feb. 01	NP/R
			Mar. 01	NP/R
			Apr. 01	9,878
				12,605
			June 01	11,739
			Oct. 01	10,137
				9,724
			Nov. 01	8,708
				8,557
			Feb. 02	14,036
				11,139
	Settleable Solids	1.0 ml/L Monthly Average	Mar. 98	1.6
			Apr. 98	2.3
			May 98	1.2
			July 98	2.0
			Aug. 98	4.6
			May 99	1.6
			Jan. 00	2.2
			Feb. 00	2.0
			Mar. 00	1.5
			May 00	4.6
			June 00	1.7
			Jan. 01	NP/R
			Feb. 01	NP/R
			Mar. 01	NP/R
			Apr. 01	1.1
			July 01	1.7
			Aug. 01	2.8
			Sep. 01	1.1
			May 02	2.2

TABLE 4 Cont.

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Settleable Solids	2.0 ml/L Daily Maximum	Mar. 98	3.0
			Apr. 98	6.0
			July 98	5.0
			Aug. 98	10.0
				3.5
				3.0
			Apr. 99	5.0
			Jan. 00	6.0
			Feb. 00	3.0
			Mar. 00	4.0
			May 00	8.0
				6.0
				2.5
			June 00	3.0
			Jan. 01	NP/R
			Feb. 01	NP/R
			Mar. 01	NP/R
			May 01	NP/R
				NP/R
			July 01	2.5
				2.5
			Aug. 01	NP/R
				6.0
			Sep. 01	2.4
			Dec. 01	2.4
			May 02	8.0

Receiving Water Quality Monitoring⁽²⁾

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Guam Water Quality Std.</u>	<u>Quarter And Year</u>	<u>Value(s) Reported in Violation</u>
	Fecal Coliform Bacteria(1)	<400 CFU/100 ml Maximum(1)	Mar. 98	Station C TNTC
			Apr. 98	Station C >400
			Sept. 98	Station C TNTC
			Oct. 98	Station B TNTC
			Dec. 98	Station C,D TNTC
			June 99	Station C TNTC
			Aug. 99	Station A TNTC
			Jan.-Mar. 00	Station D,E,F NP/R

Table 4 Cont.

Receiving Water Quality Monitoring

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Guam Water Quality Std.</u>	<u>Quarter And Year</u>	<u>Value(s) Reported in Violation</u>
	Fecal Coliform Bacteria(1)	<400 CFU/100 ml Maximum(1)	Apr.-Jun. 00	Station D,E,F NP/R
			May 00	Station A,B TNTC
			July-Sept. 00	All Stations NP/R
			Oct.-Dec. 00	All Stations NP/R
			Jan. 01	Station A,B NP/R
			Jan.-Mar. 01	Station D,E,F NP/R
			Apr.-June 01	Station D,E,F NP/R
			June 01	Station A TNTC
			July-Sept. 01	Station C TNTC
			Oct. 01	Station A TNTC
			Oct.-Dec. 01	Station D,E,F NP/R
			Feb. 02	Station A,B TNTC
			Jan.-Mar. 02	Station D,E,F NP/R
			Apr.-June 02	All Stations NP/R

No DMRs were submitted for the period of July to September, 2002.

CFU = Colony Forming Units

NP/R = Not Performed/Reported

TNTC = Too Numerous To Count

(1) Fecal Coliform Bacteria: Guam Water Quality Standards, Adopted January 2, 1992.

(2) Starting in the reporting quarter of October-December 1999, GWA identified its offshore receiving monitoring stations as A, B, D, E, and F in its quarterly reports to EPA. GWA's NPDES permit designates that the offshore receiving water monitoring stations are A, B, C, D, and E. In its quarterly reports, GWA has continued to identify its offshore receiving water monitoring stations as A, B, D, E, and F with the exception of the reporting period of July to September, 2001.

TABLE 5

Name of Discharger: Guam Waterworks Authority
Umatac-Merizo Sewage Treatment Plant, Guam

NPDES Permit No.: GU0020273

Reporting Period: September 2000 through September 2002

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Biochemical Oxygen Demand	30 mg/L Monthly Average	Apr. 01	34
			May 01	93
			Sep. 01	48
		45 mg/L Weekly Average	May 01	63
				132
			July 01	NP/R
			Aug. 01	NP/R
			Sep. 01	NP/R
				NP/R
				52
		98 lbs./day Monthly Average	Apr. 01	118
			Aug. 01	133
			Sep. 01	157
		150 lbs./day Daily Maximum	July 01	NP/R
			Aug. 01	NP/R
			Sep. 01	NP/R
				NP/R
				173
	Total Suspended Solids	30 mg/L Monthly Average	May 01	59
			Mar. 02	32
		40 mg/L Daily Maximum	May 01	76
			July 01	NP/R
			Sep. 01	NP/R
			Mar. 02	70

TABLE 5 - Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a	Total Suspended Solids	130 lbs./day Daily Maximum	July 01	NP/R
			Sep. 01	NP/R
				NP/R
			Dec. 01	148
			Mar. 02	195
	<i>E. coli</i>	126 CFU/100 ml Monthly Average	Apr. 01	>17,152
			May 01	341
			June 01	>18,229
			July 01	>16,593
			Aug. 01	>8,986
			Sep. 01	>16,131
			Oct. 01	11,621
			Nov. 01	1,225
			Dec. 01	>4,350
			Jan. 02	741
		406 CFU/100 ml Daily Maximum	Feb. 02	5,405
			Mar. 02	400
			Apr. 02	NP/R
			May 02	NP/R
			June 02	NP/R
			Apr. 01	10,111
				>24,192
			June 01	>24,192 (3)
			July 01	>24,192
				1,396
				>24,192
				NP/R
			Aug. 01	24,192
				2,755
			Sep. 01	NP/R
				>24,192
				>24,192
			Oct. 01	24,192
				5,172
				NP/R
				5,500

TABLE 5 - Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a	<i>E. coli</i>	406 CFU/100 ml Daily Maximum	Nov. 01	1,200
				3,500
			Dec. 01	TNTC
				TNTC
				8,700
			Jan. 02	2,300
				500
			Feb. 02	6,750
				4,060
			Mar. 02	800
			Apr. - June 02	NP/R
	Orthophosphate	0.1 mg/l Daily Maximum	Apr. 01	0.34
				0.376
			May 01	0.79
				3.64
			June 01	0.24
				1.05
				0.26
				0.43
			July 01	1.94
				0.78
				0.80
				NP/R
			Aug. 01	0.342
				0.759
				0.449
			Sep. 01	NP/R
				0.60
				0.73
				0.51
			Oct. 01	0.517
				0.766
				0.730
				2.5
			Nov. 01	1.25
				0.497
				0.284
				0.98

TABLE 5 - Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Orthophosphate	0.1 mg/L Daily Maximum	Dec. 01	0.479
				0.538
				0.568
				0.248
				0.579
			Jan. 02	0.466
				0.412
				0.509
				0.637
				0.302
			Feb. 02	0.165
				0.48
				0.41
				0.212
				0.331
			Mar. 02	0.272
				0.302
				0.188
				0.256
				NP/R
			Apr. 02	NP/R
				NP/R
				NP/R
				NP/R
				NP/R
			May 02	NP/R
				NP/R
				NP/R
				NP/R
				NP/R
			June 02	NP/R
				NP/R
				NP/R
				NP/R
				NP/R
	Orthophosphate	0.33 lb./day Daily Maximum	May 01	1.1
				0.79
				3.64
				1.06
				1.18
			June 01	8.07
				2.54
				3.71
				NP/R
				NP/R
			July 01	1.72
				3.45
				1.93
				NP/R
				NP/R
			Aug. 01	1.96
				2.42
				1.69
				NP/R
				NP/R
			Sep. 01	NP/R
				NP/R
				NP/R
				NP/R
				NP/R

TABLE 5 - Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a	Orthophosphate	0.33 lb./day Daily Maximum	Oct. 01	1.44
				2.49
				2.37
				6.96
			Nov. 01	4.097
				1.55
				0.931
				3.13
			Dec. 01	1.678
				1.822
				1.843
				0.916
			Jan. 02	1.72
				2.35
				1.29
				1.43
			Feb. 02	1.84
			Mar. 02	0.86
				0.38
			Apr. 02	0.591
				1.380
				1.330
			May 02	1.074
				3.058
				0.980
				0.610
			June 02	0.830
				NP/R
				NP/R
				NP/R
	Nitrate-Nitrogen	0.5 mg/L Daily Maximum	May 01	0.54
				3.29
			June 01	0.65
				0.56
				1.18
			July 01	1.5
				1.51
				NP/R

TABLE 5 - Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a	Nitrate-Nitrogen	0.5 mg/L Daily Maximum	Aug. 01	1.65
				3.44
				2.11
			Sep. 01	NP/R
				1.18
			Oct. 01	1.12
				0.74
			Nov. 01	3.53
			Dec. 01	0.622
			Jan. 02	0.542
			Mar. 02	0.62
			June 02	NP/R
			June 01	2.15
				2.35
	Turbidity	1 NTU Daily Maximum		3.29
			July 01	4.87
				7.00
				NP/R
			Aug. 01	8.15
				16.98
				6.85
			Sep. 01	NP/R
				3.92
			Oct. 01	3.12
				2.41
			Nov. 01	11.57
			Dec. 01	2.179
			Jan. 02	2.34
				1.69
			May 02	2.796
			June 02	NP/R
			May 01	NP/R
			June 01	NP/R (4)
			July 01	NP/R (3)
				4.08
			Aug. 01	5.33, 8.34
				7.48

TABLE 5 - Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Effluent Limitation</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
A.1.a.	Turbidity	1 NTU Daily Maximum	Sep. 01	NP/R (2) 77.6 5.5
			Oct. 01	NP/R (3) 7.4
			Nov. 01	4.0 5.3 2.7 4.3
			Dec. 01	8.6 11.8 15.6 28.0
			Jan. 02	NP/R 16.3 3.9 4.8
			Feb. 02	4.2 30.3
			Mar. 02	15.8 30.3 15.4
			Apr. 02	17.4 8.1 11.1
			May 02	5.6 NP/R(3)
			June 02	NP/R(4)

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Guam Water Quality Standards</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
	Enterococci	108 CFU/100 ml Instantaneous	Feb.-Mar. 01	Station TR2 416 302 132 665

TABLE 5 - Continued

<u>Permit Condition</u>	<u>Pollutant Constituent</u>	<u>Guam Water Quality Standards</u>	<u>Month And Year</u>	<u>Value(s) Reported in Violation</u>
	Enterococci	108 CFU/100 ml Instantaneous	Apr.-June 01	Station TR2 1,046 181 159 118 489 914 387 >2,419 >2,419 >2,419 669
			July-Sept. 01	Station TR2 278 482 738 608 895 145 1,003 443
			Oct.-Dec. 01	Station TR2 384 428 740 200 200 310 1,090 6,270 740
			Jan.-Mar. 02	Station TR2 8,160 410 740 11,600 1,090 960 1,090 91,390 740
			Apr.-June 02	Station TR2 NP/R

CFU = Colony Forming Units

NP/R = Not Performed/Reported

TNTC = Too Numerous To Count

Note: GWA was issued a new NPDES permit with a permit effective date of September 7, 2000. No discharge monitoring data were reported by GWA for the period of September to December, 2000. The Umatac-Merizo STP was not an NPDES-permitted facility prior to September 2000.

REPORTED SEWAGE BYPASS EVENTS

Name of Discharger: Guam Waterworks Authority

Period Covered: September 1998 through June 2002

Agana Sewage Treatment Plant Bypasses (raw sewage flows to Philippine Sea)

<u>Date</u>	<u>Bypass Period</u>	<u>Estimated Vol. (gals.)</u>
01/14/01	1 day	9,000,000
01/23/01	12 hours	5,000,000
04/27/02	9 hours	463,000
05/18/02	2 hours	1,000
06/15/02	0.5 hours	5,000

Agat Sewage Treatment Plant Bypasses (raw sewage flows to Philippine Sea)

<u>Date</u>	<u>Bypass Period</u>	<u>Estimated Vol. (gals.)</u>
09/22/98	2 days	1,600,000
01/12/99	5 hours	10,000
04/03/02	1 day	750,000

Umatac/Merizo Sewage Treatment Plant Bypass (raw sewage flows to Toguan River)

<u>Date</u>	<u>Bypass Period</u>	<u>Estimated Vol. (gals.)</u>
12/23/01	3 hours	3,500

ATTACHMENT B

Attachment B

Reported Discharges to Waters of the United States without a Permit

1. Reported Sewage Spill Events

Name of Discharger: Guam Waterworks Authority ("GWA")

Period Covered: January 2000 through November 2002

A. Mamajanao Sewage Pump Station Spills (sewage flows to Harmon Sink and Tumon and Agana Bays)

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
10/03/00	10 hours	63,900
10/07/00	1 hour	6,390
10/29/00	4 hours	25,560
10/30/00	1 day	153,360
10/31/00	4 hours	25,560
11/01/00	1 day	153,360
07/21/01	0.25 hours	31,000
07/31/01	0.25 hours	30,000
01/04/02	10 hours	740,000
01/09/02	1 hour	74,000
01/15/02	2 hours	100,000
10/23/02	3-5 hours	unknown

B. Fujita Sewage Pump Station (And Hyatt Manhole) Spills (sewage flows affect Tumon Bay)

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
09/06/00	1 day	10,000
03/03/01	1 day	180,000
03/18/01	1 day	10,000
07/31/01	4 hours	100,000
12/10/01	3 hours	320,000
12/21/01	1 hour	10,000
08/14/02	45 minutes	15,000+

C. Chaot Sewage Pump Station Spills
(sewage flows affect Chaot River and drinking water wells in Sinajana Area)

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
01/10/00	5 hours	210,000
02/01/00	1 day	1,008,000
02/05/00	4 hours	168,000
02/15/00	30 minutes	21,000
03/01/00	2.5 hours	105,000
01/23/01	3 hours	126,000
02/09/01	19 days	19,152,000
04/14/01	2 hours	73,000
04/22/01	2 hours	63,000
10/13/01	11 hours	117,000
10/29/01	30 minutes	21,000
12/20/01	20 hours	840,000
02/03/02	2 days	650,000
02/17/02		5,000
04/27/02	6 hours	77,000
05/13/02	5 hours	70,000
05/18/02	1 hour	14,000
06/15/02	2 hours	22,500
06/29/02	30 minutes	6,000
08/01/02	daily (peak hours)	unknown ¹
08/28/02	unknown	unknown
10/23/02	3-5 hours	unknown
10/30/02	unknown	8,000
11/18/02	1 hour	10,000

Note: For the period of January 1998 through December 1999, GWA reported over 200 overflow events from its sewage pump stations. A number of these overflow events probably resulted in discharges to waters of the United States. However, due to the lack of information provided in the GWA quarterly overflow reports, it is not possible at this time to determine the number and volumes of overflow events that resulted in discharges to waters of the United States.

¹ EPA was alerted that Chaot overflows daily due to pipe design deficiencies. In a 36-hour period (8/5/02-8/7/02), the pump station spilled more than 400,000 gallons. While the volume of overflow likely varies considerably each day (depending on weather and daily fluctuations in flows), unreported daily Chaot overflows probably amount to tens of millions to over one hundred million gallons of raw sewage per year.

2. GWA's Discharges from the Umatac-Merizo Sewage Treatment Plant to the Toguan River Without a Permit (January 1998 through September 2000)

<u>Date</u>	<u>GWA Reported Discharges at Station J (overflow weir)</u>
1/22/98	40-50 gallons per minute ("gpm")
2/27/98	50-60 gpm
3/28/98	40-50 gpm
4/24/98	130 gpm
5/22/98	130 gpm
7/23/98	200 gpm
8/28/98	200 gpm
9/29/98	500 gpm
10/15/98	350 gpm
11/28/98	130 gpm
12/17/98	300 gpm
1/28/99	350 gpm
2/18/99	200 gpm
10/14/99	100 gpm

Note: GWA was issued NPDES permit GU0020273 for the Umatac-Merizo Sewage Treatment Plant in September 2000. For the period of November 1999 to September 2000, GWA did not report any discharges at Station J in its Quarterly Wastewater O&M Progress Reports for the Umatac-Merizo Sewage Treatment Plant.

ATTACHMENT C

Attachment C

Reported Sewage Overflow Events

Name of Discharger: Guam Waterworks Authority

Period Covered: November 1999 through November 2002

Southern Link Sewage Pump Station Spills

(raw sewage flows to the Harmon Cliffline area)

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
11/03/99	2 days	9,600,000
11/06/99	11 days	52,800,000
11/17/99	6 days	28,800,000
12/03/99	10 days	48,000,000
05/27/00	14 days	67,200,000
07/03/00	13 days	62,400,000
09/17/00	7 days	33,600,000
12/19/00	15 days	72,000,000
12/31/00	13 days	62,000,000
01/19/01	4 days	12,000,000
03/05/01	8 hours	2,000,000
03/09/01	1 day	6,200,000
03/12/01	5 days	27,000,000
04/15/01	1 day	4,800,000
09/03/01	0.5 hours	240,000
10/13/01	5 hours	330,000
05/13/02	1 day	3,000,000

Mamajanao Sewage Pump Station Spills

(raw sewage flows to Harmon Sink and Tumon and Agana Bays)

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
10/03/00	10 hours	63,900
10/07/00	1 hour	6,390
10/29/00	4 hours	25,560
10/30/00	1 day	153,360
10/31/00	4 hours	25,560
11/01/00	1 day	153,360
07/21/01	0.25 hours	31,000
07/31/01	0.25 hours	30,000
01/04/02	10 hours	740,000
01/09/02	1 hour	74,000
01/15/02	2 hours	100,000
10/23/02	3-5 hours	unknown

Chaot Sewage Pump Station Spills

(raw sewage flows affect Chaot River and drinking water wells in Sinajana Area)

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
01/10/00	5 hours	210,000
02/01/00	1 day	1,008,000
02/05/00	4 hours	168,000
02/15/00	30 minutes	21,000
03/01/00	2.5 hours	105,000
01/23/01	3 hours	126,000
02/09/01	19 days	19,152,000
04/14/01	2 hours	73,000
04/22/01	2 hours	63,000
10/13/01	11 hours	117,000
10/29/01	30 minutes	21,000
12/20/01	20 hours	840,000
02/03/02	2 days	650,000
02/17/02		5,000
04/27/02	6 hours	77,000
05/13/02	5 hours	70,000
05/18/02	1 hour	14,000
06/15/02	2 hours	22,500
06/29/02	30 minutes	6,000
08/01/02	daily (peak hours)	unknown ¹
08/28/02	unknown	unknown
10/23/02	3-5 hours	unknown
10/30/02	unknown	8,000
11/18/02	1 hour	10,000

¹ Chaot overflows daily due to pipe design deficiencies. In a 36-hour period (8/5/02-8/7/02), the pump station spilled more than 400,000 gallons. The volume of overflow will vary considerably each day depending on weather and daily fluctuations in flows. Unreported daily Chaot overflows may amount to tens of millions of gallons of raw sewage per year.

Fujita Sewage Pump Station and Hyatt Manhole Spills
(Raw sewage flows affect Tumon Bay)

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
09/06/00	1 day	10,000
03/03/01	1 day	180,000
03/18/01	1 day	10,000
07/31/01	4 hours	100,000
12/10/01	3 hours	320,000
12/21/01	1 hour	10,000
08/14/02	45 minutes	15,000+

Tai Mangilao Sewage Pump Station Spill

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
08/27/02	2 hours	54,000

Santa Ana Sewage Pump Station Spills

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
12/05/01	5 hours	60,000
2/10/01	1 hour	1,800
04/27/02	13 hours	8,500
07/19/02	unknown	200,000+
10/23/02	3-5 hours	unknown

Astumbo Sewage Pump Station Spills

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
04/27/02	13 hours	18,000
06/01/02	1 week (intermittent)	
06/15/02		4,000
10/23/02	3-5 hours	unknown (SPS No. 1 and 2)

Ypao Sewage Pump Station Spills

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
05/13/02	6 hours	60,000
05/18/02		15,000
06/15/02		2,500

Harmon Sewage Pump Station Spills

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
01/24/02		5,000
04/27/02	13 hours	65,000
10/23/02	3-5 hours	unknown

PGD Sewage Pump Station Spill

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
01/24/02		1,250

Merizo Sewage Pump Station Spill

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
12/12/01	5 hours	unknown

Namo Submarine Sewage Pump Station Spill

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
05/08/01	3 days	204,000

Latte Sewage Pump Station Spill

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
05/24/01	2 days	20,000

Liguan Terrace Sewage Pump Station Spill

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
07/21/01	6 hours	2,000,000
10/23/02	3-5 hours	unknown

Hafa Adai Sewage Pump Station Spill

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol.(gals.)</u>
10/23/02	3-5 hours	unknown

Fema Sewage Pump Station Spill

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol.(gals.)</u>
10/23/02	3-5 hours	unknown

Mongmong/Toto Sewage Pump Station Spill

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
10/23/02	3-5 hours	unknown

Paseo De Oro Sewage Pump Station Spill

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
10/23/02	3-5 hours	unknown

Umatac-Merizo Sewage Pump Station No.13 Spill

<u>Date</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
10/23/02	3-5 hours	unknown

Various Sewer Line Spills

<u>Date</u>	<u>Area</u>	<u>Overflow Period</u>	<u>Estimated Vol. (gals.)</u>
04/12/02	Marine Dr. pipe, Adelup	6 days	10,760
06/23/02	Marine Dr. pipe, Piti	2 days	9,000
06/26/02	Marine Dr. pipe, Piti	2 hours	1,000
08/13/01	Merizo sewer line	unknown	unknown
10/23/02	Manholes Marine Dr., Tamuning	3-5 hours	unknown

GWA Quarterly Overflow Reports

GWA Wastewater Operations Division: Overflow 2nd Quarter Report FY 98 (Jan. 98-Mar.98)
Overflow 3rd Quarter Report FY 98 (Apr. 98-June 98)
Overflow 4th Quarter Report FY 98 (July 98-Sept. 98)
Overflow 1st Quarter Report FY 99 (Oct. 98-Dec. 98)
Overflow 2nd Quarter Report FY99 (Jan. 99-Mar. 99)
Overflow 3rd Quarter Report FY99 (Apr. 99-June 99)

These reports listed a total of over 96 million gallons of overflows of untreated wastewater from GWA's wastewater collection and conveyance systems for the period of January 1998 through June 1999.

ATTACHMENT D



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RECREATIONAL WATERS POLLUTION REPORT

Release Date: November 21, 2002

Contact: Environmental Monitoring and Analytical Services Division at 475-1656/8

Number of beach closures: 0

Number of beach advisories: 24

The results of samples taken by the Guam Environmental Protection Agency on **Wednesday, November 20, 2002**, show that the following recreational waters were polluted above the accepted bacteriological standards:

Tumon:	Naton Beach
Tamuning:	Dungca's Beach, Trinchera Beach, Padre Palomo Park Beach
Hagåtña:	Hagåtña Boat Basin, Hagåtña Bayside
Asan:	Adelup Park Beach (Fonte River), Asan Bay
Piti:	Piti Park, Santos Memorial Park, Outhouse Beach
Agat:	Rizal Beach, Namo Beach, Southern Christian Academy Beach, Bangi Beach
Umatac:	Umatac Bay
Merizo:	Merizo Pier
Inarajan:	Inarajan Pool, Inarajan Bay
Talofofo:	Talofofo Bay, Ipan Beach, Togcha Bay
Yona:	Tagachang Beach
Chalan Pago:	Pago Bay

(Place names as spelled in United States Geological Survey [USGS] maps.)

The public is advised not to swim or wade within 400 yards of polluted waters. This advisory is in effect until subsequent samples are analyzed and show bacteriological concentrations to be within acceptable standards. No harvesting or consumption of seaweed, fish or marine organisms is allowed at Tanguisson Beach.

Swimming, fishing or playing in unsafe waters may result in minor illnesses such as sore throats or diarrhea. It might also result in more serious illnesses such as meningitis, encephalitis, or severe gastroenteritis. Children, the elderly and people with weakened immune systems have a greater chance of getting sick when they come in contact with contaminated water.

The Recreational Waters Pollution Report is compiled by Guam EPA's Environmental Monitoring and Analytical Services Division. Since 1974, Guam EPA has performed this community service weekly. The Environmental Monitoring and Analytical Services Division (formerly called Monitoring Laboratory Services Division) takes water samples of 38 recreational beaches every Wednesday* and analyzes the samples for concentrations of the *enterococcus* bacteria indicator. Advisories are based on an instantaneous standard of not greater than 104 *enterococci*/100 ml and a geometric mean standard of not greater than 35 *enterococci*/100 ml.

Questions about the Recreational Waters Pollution Report should be directed to the Guam EPA laboratory. The laboratory can be reached at 475-1656/8, or send e-mail to Biologist Annie D. Leon Guerrero at amelg@guamepa.govguam.net.

For more information, please also visit [USEPA Beach Program](#) or [USEPA Office of Water Beach page](#) on the web.

* Adjustments are made during official holidays.

ATTACHMENT E

Attachment E

Summary of Guam Waterworks Authority's Total Coliform Rule Maximum Contaminant Level Violations - 1999-2002

Month	Year	TCR MCL violation - monthly	TCR MCL violation - acute (fecal coliform or E. coli)	Public Water System	Source of Information
May	1999	N	Y	GWA Northern	GWA CCR and GEPA
August	1999	N	Y	GWA Northern	GWA CCR and GEPA
November	1999	Y	Y	GWA Northern	GWA CCR and GEPA
December	1999	Y	Y	GWA Northern	GWA CCR and GEPA
June	2000	N	Y	GWA Northern	GEPA NOV/CO
October	2000	Y	N	GWA Southern	GEPA NOV/CO
March	2001	N	Y	GWA Northern	GEPA NOV/CO
July	2002	Y	Y	GWA Northern	GEPA
October	2002	N	Y	GWA Northern	GEPA

TCR = Total Coliform Rule

MCL = Maximum Contaminant Level

GWA = Guam Waterworks Authority

CCR = Consumer Confidence Report

GEPA = Guam EPA

NOV/CO = Notice of Violation and Compliance Order

ATTACHMENT F

Attachment F

Turbidity violations - GWA's Southern System (Ugum Surface Water Treatment Plant)
- from monthly data summaries provided by GWA to Guam EPA

Date	% of samples ≤ 0.5 NTU	Single exceedance of 5 NTU
August 2001	92.3%	-
July 2001	92.3%	Yes (8 exceedances, as high as 11.0 NTU)
August 2000	88.7%	-
December 1999	83.33%	-
November 1999	77.14%	Yes - (One exceedance, 5.1 NTU)
October 1999	64.16%	-
September 1999	40.74%	Yes - (9 exceedances, as high as 21.0 NTU)
August 1999	79.01%	-
July 1999	57.71%	-
June 1999	67.84%	-
Feb 1999	88.2%	-

ATTACHMENT G

Attachment G

Partial Summary of Drinking Water Well Contamination Data

Guam Waterworks Authority's Northern System drinking water wells that tested positive for total and/or fecal coliform (based on data provided to EPA by Guam EPA).

Testing Period: January through March 2000¹

Well #	Total Coliform positive?	Fecal Coliform positive?
A-5	Y	Y
A-6	Y	Y
A-13	Y	N
A-21	Y	N
A-23	Y	Y
A- 25	Y	N
A-30	Y	N
A-31	Y	N
M-1	Y	N
M-8	Y	N
EX-11	Y	N
D-2	Y	N
D-12	Y	N
D-16	Y	N
D-19	Y	Y
Y-3	Y	N
F-5	Y	N
F-8	Y	N
F-12	Y	N

¹ Information may not be complete, and additional wells may have tested positive during these months.

Testing Period: March 2001²

Well #	Total Coliform positive?	Fecal Coliform positive?
A-5	Y	Y
A-6 ³	Y	Y
A-23	Y	N
A- 25	Y	Y
A-30	Y	Y
A-31	Y	N
A-32	Y	Y
M-9	Y	N
D-4	Y	N
Y-3	Y	N
F-12	Y	N

² Information may not be complete, and additional wells may have tested positive during this month.

³ In March 2001, Well A-6 was also tested for enterococci and tested positive twice.

ATTACHMENT H



GUAM WATERWORKS AUTHORITY

Government of Guam

Post Office Box 3010, Agaña, Guam 96932

Phone: (671) 479-7813 Fax: (671) 479-7879

March 13, 2001

FOR IMMEDIATE RELEASE

CONTACT: PATRICK LUJAN
PUBLIC INFORMATION OFFICER
479-7813, 720-4170

JESUS T. SALAS

DAVID W. LONGA

~~ATTENTION: [illegible]~~

GWA/GEPA JOINT NEWS RELEASE

BOIL WATER NOTICE

What Happened?

On March 9, 10 and 12, 2001, several water samples collected from homes and wells in Hagatna, Afame, Sinajana and Ordot areas, which are served by wells A-6, A-29 and A-30, indicated the presence of total coliform and *E. coli* bacteria in the distribution system and in the source water. These results, together with the absence of the required chlorine residual in parts of the distribution system indicate a potentially serious health threat. This is a violation of the acute MCL (maximum contaminant level) standard for bacteria in drinking water under both the Guam and Federal drinking water regulations.

A review of historical records for the last 5 years has indicated that several of the wells which serve this part of the water system have had a history of bacteriological contamination, including both total coliform and fecal coliform in the source water (i.e., before the water is chlorinated to disinfect it). The source of this fecal contamination in the wells is not certain; however, it appears likely that it is associated with sewage overflows, which have occurred intermittently in the past, from the Chaot pump station along Route 4 in Sinajana.

In addition, there have been problems with the chlorinators used to disinfect the water wells in this area. This has occasionally resulted in low (or no) chlorine residual in this part of the system. When the chlorine residuals are low or non-existent, bacteria and other microorganisms, which may be present in the wells, can also get into the distribution system, which then poses a health threat to the public.

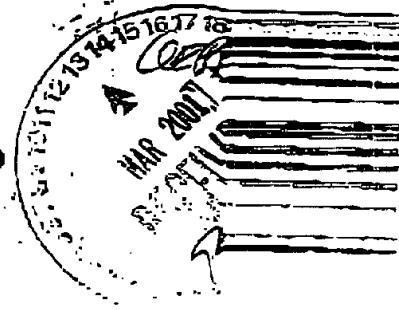
DIVISION HEADS:

Envs Svcs: Sandy/Rose
r Division
& Land Div.
Env. Planning & Review
Doming's info

EMAS Division
Atty. Lis T. Cruz
H. Victor Wuerch
Lance Richman

Denny Cruz
Grace Garces (PIO)

BULLETIN BOARD



What should the residents of Agana, Afame, Sinajana and Ordot do?

DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST. Bring all water to a boil, let it boil for one minute, and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking, making ice, brushing teeth, washing dishes, and food preparation until further notice. Boiling kills bacteria and other organisms in the water.

Fecal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, elderly, and people with severely compromised immune systems. These symptoms, however, are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than your drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice. People at increased risk should seek advice from their health care provider about drinking the water.

What is being done?

GWA and GEPA are working together to develop and implement a more rigorous monitoring and testing program for both bacteria and chlorine residual levels island wide particularly at Sinajana, Ordot and Hagatna areas. In addition, repairs will be made to the chlorinators. GEPA and GWA are continuously testing at wells, homes and at the distribution system.

Who can you contact if you have questions?

Customers with questions or concerns about drinking water should contact Carmen Sian-Denton of GWA's Laboratory Support Services Division at 632-9697, or Angel Marquez of GEPA's Safe Drinking Water Program at 475-1660/1 weekdays during the hours of 8:00 am to 5:00 pm.

* * * * *